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CANNON, LONDON" (2 Words)

PUBLISHED WEEKLY AT 42 CANNON STREET, LONDON, E.C.4

SUBSCRIPTION (WITH
DIARY) 20/- PER ANNUM
SINGLE COPIES 9d.

No. 2606.

JANUARY 18, 1930.

Vol. CXII.



The composition of this Lozenge is unique, and its effectiveness unsurpassed.

Sells at 1/- and 1/9 P.A.T.A.
Costs 6/6 and 12/6 per doz.

Bonus of 1 doz. with each gross, showing
a protected profit of 100%.

MEGGESON & CO. LTD.
BERMONDSEY - - LONDON, S.E.16.

EPHEDRINE HYDROCHLORIDE CRYST.

Owing to reduced manufacturing
costs we are now able to supply at

17/- per oz.

MAY & BAKER, Ltd., BATTERSEA, LONDON

SPECIAL NOTICE

Pepsodent Week January 20th to 27th

On Monday next — the 20th inst.—Pepsodent Week starts.

Will you kindly see that you have *your* Pepsodent Window Display showing from that date?

The 1930 Pepsodent advertising campaign starts on the 20th—a front page in the “Daily Mail” on FRIDAY, January 24th.

If you have not sent for a display we can manage to get one to you in time if you write immediately.

Pepsodent
TRADE MARK

The Scientific Dentifrice

The Pepsodent Co., Dept. 280, India House, 8 India Street, London, E.C.3

S.2

"PEROXTIK"

THE SOLID PEROXIDE OF HYDROGEN



10 Volume Strength

A handy form of anti-septic for cuts, abrasions, stings, etc. Excellent for use after shaving, it is also highly recommended for removing cigarette stains. Furthermore this preparation is guaranteed to maintain its stability, whereas the liquid form gradually deteriorates.

Per 10/- dozen

Retail: 1/3 per tube

SOLID IODINE

IN THE SAME HANDY PACKING!

These small tubes are invaluable for the hand-bag and travellers, and the preparation may be used as an antiseptic instead of Tincture of Iodine. Air-tight and cannot evaporate.

Per 9/- dozen

Retail: 1/3 per tube



Arthur H. Cox & Co. Ltd. Manufacturing Chemists Est. 1839. Brighton



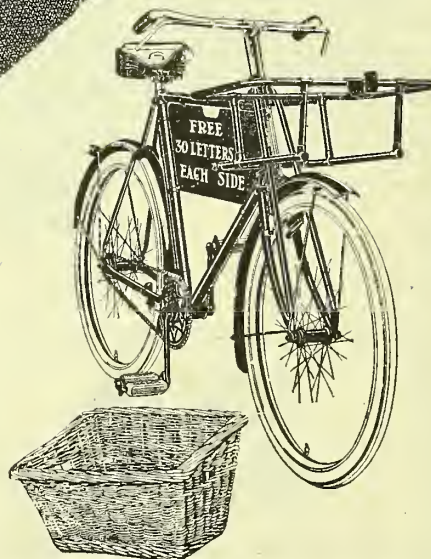
Contented with his lot

A messenger, satisfied with his carrier bicycle, works better than one who is not—earns you more profit and increases business.

For years we have supplied Messrs. W. H. Smith & Son with carrier bicycles, and here is the comment of A. S. Marsh of their Beckenham bookstall:—

“The Raleigh is a most pleasing bike to ride. The firm could not have selected a better make.”

The Raleigh Carrier is built for service. It includes name-plate with up to 60 letters free, basket, low crank-bracket for safety, practically unpuncturable Dunlop Clipper Carrier tyres, wide mudguards, specially-strengthened girder forks, all-weather finish, and, most important of all, the Raleigh all-steel construction which ensures a carrier that will endure the roughest usage and never need the repair shop.



RALEIGH CARRIER CYCLE

There is a Raleigh agent in nearly every town and village, who can supply your exact wants at once, and you can get the Raleigh Carrier for

£9 · 10s. cash

or 12 monthly payments of 17/9

Send for any further particulars you desire and the address of the nearest Raleigh agent.

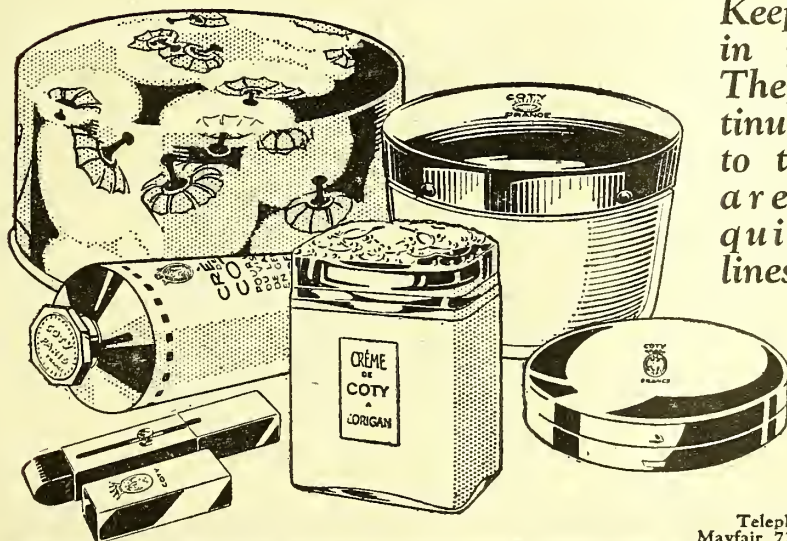
The Raleigh Cycle Co., Limited, Nottingham.

Keep COTY *on view!*

THE passing of the Festive Season should not lessen the demand for perfumes and cosmetics. In fact, the first few weeks of the year offer greater opportunities for increased sales.

The bad weather which is usually prevalent during the early part of the year does its best to spoil complexions. Then is your opportunity to sell Coty Creations to women — especially the Face Creams, the Face Powder and the Compacts. In view of the large number of Dances, Theatre Parties, Dinners, etc., which take place soon after Christmas, you should have no difficulty in selling Coty Creations when advising women to take care of their skins if they want to look their best.

*Keep Coty Products
in your windows.
They are being con-
tinuously advertised
to the public, and
are easily the
quickest selling
lines in the trade.*



Coty (England) Ltd.
Coty House,
3, Stratford Place,
London, W.1.

Telephone:
Mayfair 7244-7249.

Telegrams:
Paricoty, Phone, London.

MEDICINAL PARAFFIN

IN BULK OR BOTTLES.

If you want
HIGHEST QUALITY

buy our



(Standardised)

The World's Finest Paraffin

If you want
LOWEST PRICE

We can supply all other grades from:—

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at competitive rates.

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PHONE: 45118
WIRE: DALMAS

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A PROFITABLE LINE FOR PHARMACISTS

PILE OINTMENT

— ACTS LIKE MAGIC —

EACH PACKED
IN A BOX
with vulcanite
introducers

$\frac{1}{2}$ doz. boxes packed
in a show box



PRICE
9/- per dozen

In gross quantities
8/6
per dozen

RETAIL PRICE $\frac{1}{3}$ per tube

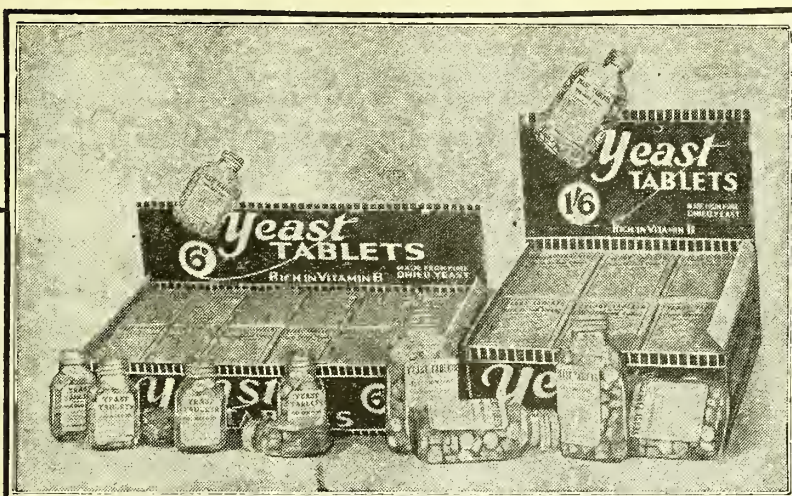
MANUFACTURED BY

JOHN THOMPSON (Wholesale Druggist 1921) LTD.

MANUFACTURING CHEMISTS

27/35 DUKE STREET, LIVERPOOL

Telegraphic Address:
"DRUGS, LIVERPOOL."



YEAST TABLETS

HERE is a profitable line for you. There is a very large and increasing demand for our Yeast Tablets—why not get a share of the business?

Made from purest yeast without any admixture, these tablets retain their full activity. The proof of their excellence is in the steady stream of repeat orders coming in from all over the country.

The packing is attractive and sales compelling, and this most successful line is well worth a window show.

Minimum retail prices—6d. and 1/6d. per bottle.

Wholesale prices 4/- and 10/6d per dozen.

Showcards and Display Matter free.

SPECIAL PARCELS.

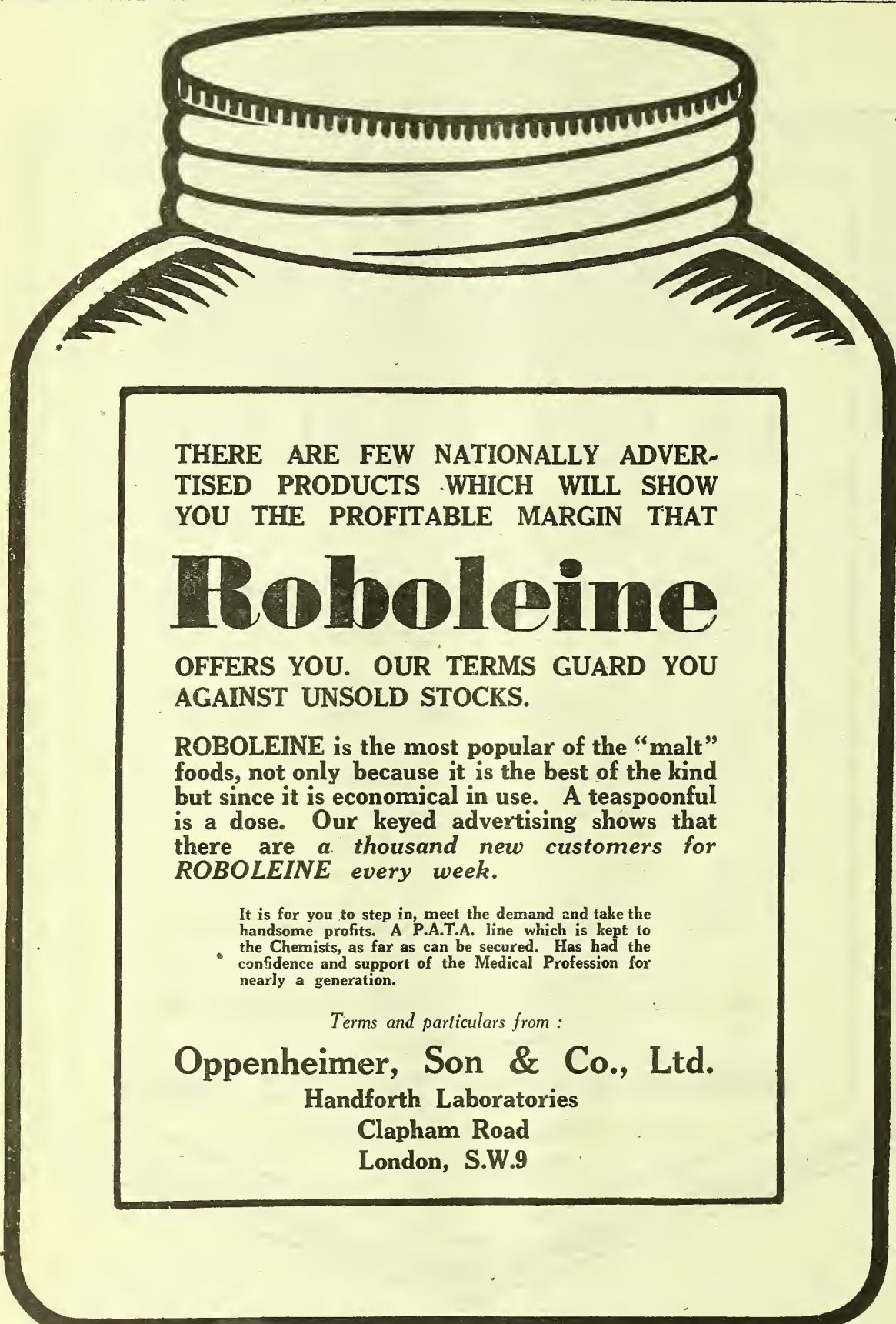
Our Yeast Tablets can be bought on very advantageous terms, yielding big profits.

PLEASE SEND A CARD FOR PRICES AND FULL PARTICULARS

★ **Note :** Having disposed of our retail businesses some time ago, please note that we are now **WHOLESALE ONLY.** ★

THOMPSON & CAPPER WHOLESALE LIMITED

Manesty Buildings, College Lane
LIVERPOOL



THERE ARE FEW NATIONALLY ADVERTISED PRODUCTS WHICH WILL SHOW YOU THE PROFITABLE MARGIN THAT

Roboleine

OFFERS YOU. OUR TERMS GUARD YOU AGAINST UNSOLD STOCKS.

ROBOLEINE is the most popular of the "malt" foods, not only because it is the best of the kind but since it is economical in use. A teaspoonful is a dose. Our keyed advertising shows that there are *a thousand new customers for ROBOLEINE every week.*

It is for you to step in, meet the demand and take the handsome profits. A P.A.T.A. line which is kept to the Chemists, as far as can be secured. Has had the confidence and support of the Medical Profession for nearly a generation.

Terms and particulars from :

Oppenheimer, Son & Co., Ltd.

Handforth Laboratories

Clapham Road

London, S.W.9

As in 1929 So in 1930

Moorlands will bring definite
results to the live pharmacist



—and there's no “conjuring” with the
quality of this fine product

The high standard of manufacture never varies, we always strictly adhere to the original superior formula. That's why Moorlands are the best and quickest selling digestive tablets on the market to-day. That's why no other similar tablet can even approach them, *and your customers know it.*

Make a display to-day and speed up your turnover

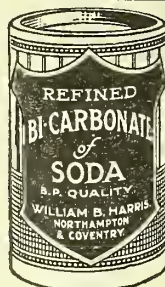
W. B. CARTWRIGHT LTD. RAWDON LEEDS



ROBINSON'S of CHESTERFIELD for CARDBOARD BOXES

ROUND · OVAL · SQUARE · FOLDING

ROBINSON & SONS LTD.
CHESTERFIELD & LONDON



BEADED BOXES

The boxes illustrated above are finding increasing favour amongst chemists. They are dust-proof and air-tight and of a very attractive appearance. Fitted with a flanged metal lid which is easily lifted out they form a very useful container.

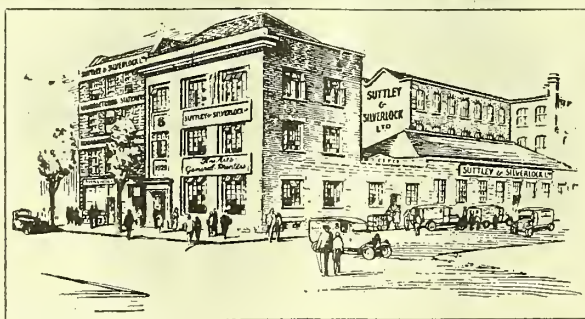
Blank panel on reverse side for printing in Customer's name and address.

ROBINSON & SONS, Ltd.

Manufacturers of ROUND, OVAL, SQUARE AND FOLDING
CARDBOARD BOXES.

CHESTERFIELD

1823



1930

Suttley & Silverlock, Ltd., wish their many friends and customers in the Drug and Kindred Trades a Prosperous New Year.

For over 100 years our name has been a household word to Chemists and Wholesalers for all printing dealing with this important trade.

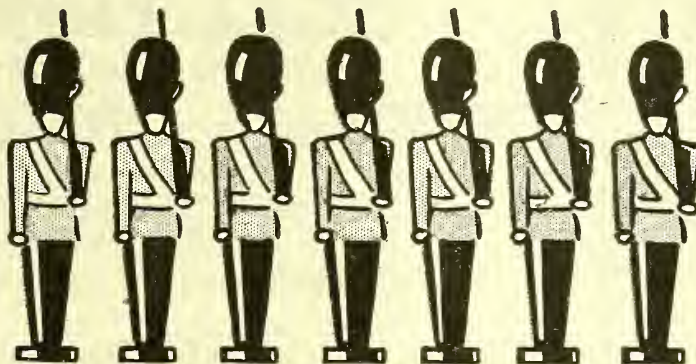
We naturally feel proud of the valued patronage received in the past and trust that same will still be extended to us.

As you will see from the illustration above, we have built a new wing to our factory in Blackfriars Road in which we are installing the latest models of machinery, and shall then be in a position to cope with a much larger volume of business. For this reason we cordially invite enquiries from retailers and wholesalers for Labels, Showcards, Posters and Catalogues.

Phone, Hop 3474 (4 lines), for our Representative to call and he will be only too pleased to receive instructions for your next order and to assist you by giving any particulars needed, or write to 92 Blackfriars Road and your enquiry will be dealt with by a Staff fully familiar with all requirements of the Chemists' Trade.

Suttley & Silverlock, Ltd. (*Printers to the Drug Trade*), Blackfriars Rd., London, S.E.1

Maw's Page



||| ORDER |||

The advantages of the "Meritor" Tooth Brush selling plan and the "Meritor" Tooth Brush Display Case can be summed up in the single word—"ORDER."

Think of it! A complete tooth brush stock contained in a space of about one cubic foot; a full selection of sizes, shapes, grades of hardness and prices; a tooth brush to meet the requirements of every customer and all in apple-pie order.

Bear in mind, also, that the range of brushes is in full view of the customer, side by side, like soldiers on parade, but protected from dirt, indiscriminate handling and theft. Remember, further, that each brush is in its own dust-proof carton and that each size and shape is kept in a separate drawer, marked with the price; again, everything in order to save you time and trouble.

Order from first to last, planned with the utmost care, to help you to hold and increase your tooth brush business.

Turn it over in your mind and you will realise that your policy in regard to the "Meritor" Case and "Meritor" Brushes should be summed up in the single word—"ORDER."

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.





Adeps Benzoatus
Adrenalin
Amylopsin
*Beef Juice**
Carminex
*Catgut**
Cerebrin
*Corpus Luteum**
Diasase (Animal)
Digestive Ferments
Duodenin
*Enzymes**
Galactis
Hæmoglobin
*Insulase**
Lactated Pepsin
Lecithin
*Liver**
Lymphatic
Mammary
Mam-Ovarian
Mam-Placenta
Meduphites
*Multigland**
Myelin
Orchitic
*Ovarian**
*Ovarian Residue**
*Ovo-Testis**
Ovo-Thyroid
Ox Gall
Pancreas
Pancreatin
*Parathyroid**
*Parathyroid Compound**
Pepsin
*Peptone**
Pineal
*Pituitary, Whole Gland**
 *" Anterior Lobe**
 *" Posterior Lobe**
 *" Compound**
Placenta
Prostate
*Red Bone Marrow**
Renal Cortex
*Spleen**
*Supra Medulla**
*Suprarenal**
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*Thyroid**
*Thyro-Manganese**
Trypsin

*LITERATURE
AVAILABLE.

GLANOID

FORTY-PER-CENT

SPLEEN SOLUTION

IN THE TREATMENT OF

ECZEMA & URTICARIA

—SEE—

Dr. Thos. M. Paul, in "The Urologic and Cutaneous Review," Vol. XXXIII, No. 11, 1929.

Full details sent on application.

GLANOID

Concentrated Fluid Extract of LIVER

ONE OUNCE (the Daily dose) = HALF POUND
FRESH WARM CALF LIVER

PALATABLE,—READY TO TAKE

The only stabilised FLUID EXTRACT accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in their list of New and Non-Official Remedies.

Write for New Booklet.

OUR 1930 PRICE LIST IS NOW AVAILABLE

LABORATORY DEPARTMENT
ARMOUR AND COMPANY
LIMITED

ARMOUR HOUSE, St. MARTIN'S-LE-GRAND,
LONDON, E.C.1.

Telegrams: "ARMOSATA—CENT," LONDON.

Telephone: NATIONAL 2424.

Easy to Catch
and
to Dispatch



a "Throat"

Buy a box of Evans' Throat Pastilles to-day. Their soothing vapours quickly permeate all the cavities of the nose and throat. They are your best protection.

EVANS'
THROAT
Pastilles

Of all Chemists 1/- per tin.

EVANS SONS LESCHER & WEBB, Ltd.,
London, Liverpool, Dublin.



Prevent the bills
of winter ills

Guard against the dangers of neglecting huskiness or loss of voice. At the first sign of trouble take Evans' Pastilles. They give quick relief, soothing all harshness and irritation.

Always efficacious and reliable.

Of all Chemists 1/- per tin.

EVANS'
THROAT
Pastilles

EVANS SONS LESCHER & WEBB, Ltd.,
London, Liverpool, Dublin.

ABOVE

are two more pieces of
copy which are appearing
in the National Press.

In every case we refer
the public to the Chemist.

See that you hold a good
stock of

EVANS' PASTILLES.

EVANS SONS LESCHER & WEBB, LIMITED



NOW IS THE TIME TO SELL 'ASPRO' SUPER-AUTOMATICALLY



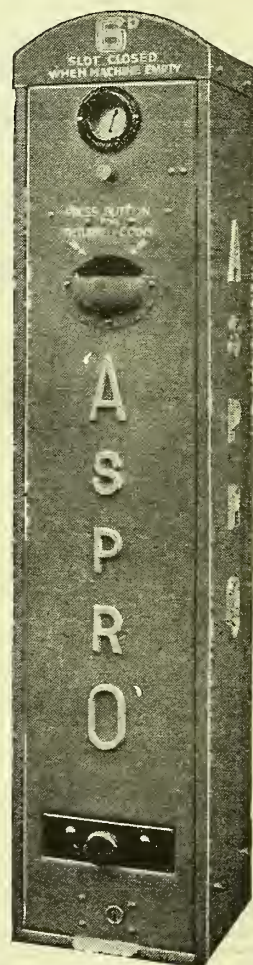
During these Winter Months there is a tremendous volume of business to be done in selling 'ASPRO' Super-Automatically. By day and by night, weekdays and Sundays, Super-Automatic Machines are taking and making money for their owners. They fill a definite need and yield a certain and continuous profit. They are quiet and dignified in aspect, being made of steel plates finished in mauve.

Enquiries are reaching us from every part of the country and owing to the limited number of machines immediately available, it is advisable to order at once. You can pay for them on easy terms out of the immediate and continuous profits they earn.

The Super-Automatic 'ASPRO' Machines can only be obtained by, and are only sold to chemists.

To every purchaser of a Super-Automatic 'ASPRO' Machine, Messrs. Gollin & Co. (Pty.), Ltd., will supply **FREE** for a limited period only, 2 gross 6d. packets of 'ASPRO' Tablets.

Sell 'Aspro'—the BEST Seller—in the BEST Automatic Machine



The Sales Manager,

COUPON

The Super-Automatic Machine Co., Ltd., Mitcham, Surrey.

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Name, or style of firm.....
Address

Yours for the asking!

The General Drug Trade is not aware of the enormous trade in Toilet Rolls which can be had for the asking.

How to ask!

Most chemists wait to be asked for Toilet Rolls. Try putting a mass display in the window during the awkward time between taking out the old window and assembling the goods for the new display. Keep always a bold pile on the floor, or tiered on an out-of-the-way portion of the counter—in fact, anywhere—but never forget a prominent price card with popular prices—4½d., 6d., 7½d.

Let every Toilet Roll you sell advertise your name

Brand mark or name on one gross or more of any Toilet Roll.

LIST OF PRICES:

TOILET PAPER, in rolls.	List No.	Per doz.	6 doz.	1 gross.	2 gross
"Hygienic"	26/1264	3/6	3/4½	36/-	34/6
"Club"	—	4/-	3/10½	42/-	40/-
"Sanitary"	—	4/-	3/10½	42/-	40/-
"Unico"	26/1269	4/6	4/3	48/-	46/-
"Lotus"	*26/1274	3/9	3/6	39/-	36/-
"Sanico"	26/1272	4/6	4/4½	51/-	49/6
"Popular"	—	4/6	4/4½	51/-	49/6
"No. 1 Thin"	*26/1273	5/-	4/9	54/-	52/6
"St. George"	26/1268	5/6	5/3	60/-	57/-
"Pine"	*26/1267	5/9	5/6	63/-	61/-
"Bronco"	26/1273	6/10	6/8	78/-	76/-
"Mikado"	26/1266	7/6	7/3	84/-	83/-
"Vel Vel" (Papier de Luxe)	*26/1271	6/-	5/10½	69/-	67/6

* Popular Sellers.

TOILET PAPER, in Packets.

"Mikado"	26/1277	7/9	—	—	—
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Packets in patent leather-board holder	—	5/6	5/3	5/-	—

TOILET FIXTURES.

All metal (List No. 26/1276)	Per doz.	7/9
Metal holder on wood mount (List No. 26/1278)	15/-
White enamelled wood	8/-

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THE small (9d.) tins of this popular speciality are now being issued in attractive and convenient display boxes of one dozen. They are printed in harmony with the well-known large canisters and can be arranged in a variety of ways to suit the space available. The tins are removable only from the back so there is no danger of loss by pilfering. When empty the boxes are still quite useful for window or counter display. Keep an outer on your counter and point out to your many customers for the 1½d. packets the obvious advantages of having a supply of Castols always in the house ready for use when required. The extra profit per customer will make the extra effort well worth while.



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The London Office carries AMPLE STOCKS and invites inquiries.

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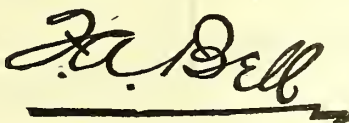
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Full stocks at all Wholesalers, or direct from:—
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WE CREATE THE DEMAND

YOUR SALES ARE QUICK AND PROFITABLE

HAMOE'S HAIR CULTURE

A sure remedy for
GREY HAIR, BALDNESS,
SCURF, DANDRUFF,

and all other hair troubles, non-greasy.

Hamoës Hair Culture is regularly advertised in the National Press. It is **NOT** a new and untried prescription, but has been on the market for ten years with excellent results.

Profits exceptionally generous.

Write for trade terms and full particulars.

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PETAL DUST

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THE GREAT FLORAL AIR PURIFIER

A Trial will convince you that—

PETAL DUST, when once shown, creates its own demand, and is therefore a valuable adjunct to every "go-ahead" store.

PETAL DUST, when displayed prominently upon your counter, will attract prudent customers by the fragrance of its unique odour, which to-day is of such universal admiration.

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Attractive Advertising matter free on request.

Obtainable through all the usual Wholesale Houses or
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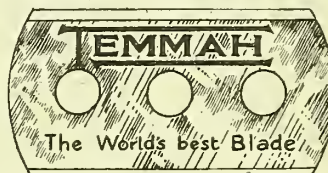
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YIELDS **86%** PROFIT

BONUS 2 DOZEN (and attractive Showcards) on 1 gross.

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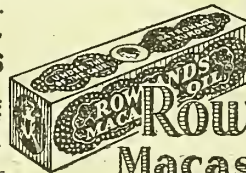
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Rowland's Macassar Oil is no new preparation; it has been used all over the world for more than 137 years and everywhere it is held in the highest esteem. It is guaranteed to

contain no
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3/6, 7/-
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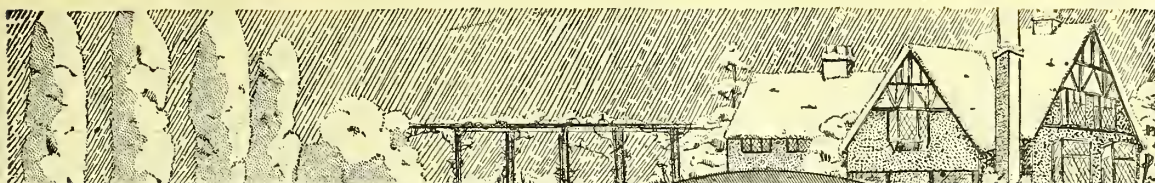
Red for
dark hair;
golden for
fair or
grey hair.
From all
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R.M.47



A STRONG WINTER ARGUMENT!

**BRISTOW'S
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SKIN SOAP**

TOILET SIZE
per 6d tablet
BATH SIZE
per 1/- tablet
SHAVING STICKS
per 1/- tin
SHAVING CREAM
per 1/3 tube



All your customers who suffer with chapped hands, raw and rough skins are potential buyers of Bristow's Medicated Skin Soap.

This soap combines the valuable properties of Ichthyol with the noted characteristics of Bristow's Toilet Soaps, and keeps the skin smooth, supple and in perfect condition in the most bitter weather. It is eminently pleasing in use, developing a rich creamy lather.

Increasing sales and regular repeats prove Bristow's Medicated is in greater demand than ever before.

**IT IS EXCLUSIVELY A CHEMIST'S LINE
AND CARRIES LIBERAL BONUS TERMS.**

If you are not already stocking, write now for samples and terms. Attractive display material is available.

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Colindale, London, N.W.9

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Telegrams : "Floralium, Phone, London."

**4d. Soap
Free**

P.A.T.A.

**3d.
TUBES**

containing
a
full half
ounce of
"VELDT
CREAM."

A well-kept hand is the hall mark of refinement !

"Veldt Cream"

3 doz. SHOW BOXES
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Enclosed with each tube is a coupon which when filled up the chemist is authorised to give absolutely free a full-size 4d. Tablet of "VELDT CREAM" Soap each time a 3 oz. bottle of "VELDT CREAM" is purchased. We redeem these coupons so that a chemist gets his FULL PROFIT.

**4d. Soap
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Red
Rough
Chapped
Hands
made
Smooth
and
White
in a
Single
Night

Sole

Manufacturers:

The "Veldt" Laboratory

Louth,

England

**Your wife will
say:**

**"Why didn't you
tell me before
about these**

**BUTYWAVE
SHAMPOOS?"**



**A
KEEN
BLADE
AT A
KEEN
PRICE**

The Blade that SELLS as it SHAVES—
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Obtainable from all Leading Wholesalers.

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For SURGICAL
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The British-Made
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Dainty Shingling
Clippers for
Ladies' use.

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MERCOLIZED WAX

— : for the Complexion : —

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— : a Shampoo : —

TWO substantial and well-advertised lines which show a handsome profit to the Retailer, and, moreover, may be stocked fearlessly owing to the Manufacturers' most liberal Sale or Return Guarantee.

Both are obtainable in two sizes, and their reputation and sterling value assure a steady turnover.

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COLOGNE for the BATH & TOILET

Packed in two Styles



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4	8	16	32	oz.
9/6	14/-	25/6	45/6	doz.

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10	20	40	oz.	
20/-	36/-	64/-	doz.	



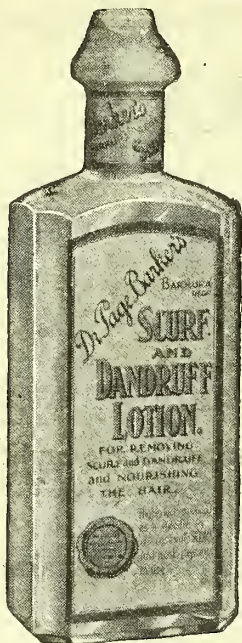
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Dr. Page-Barker's Scurf & Dandruff LOTION

The recognised
specific for scurf

EVERY bottle of Dr. Page-Barker's Scurf Lotion bears a positive guarantee that it will eradicate scurf or the purchase price will be refunded. This makes it the easiest to sell of all hair and scalp specifics. And the profit is handsome.

2/6

P.A.T.A.

PER 18/- DOZEN

SEE OUR NEW AND ARTISTIC SHOWCARDS

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IS
BRITISH MADE
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BRITISH LABOUR
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SUPPORT HOME INDUSTRIES BY
RECOMMENDING THESE EXCELLENT
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Offer this

When customers ask for a colour-restorer for grey hair, or a tonic to stop falling or to promote growth, offer



MORGAN'S POMADE

You may do so in full confidence that it will perform what it promises. 35 years' reputation, a world-wide trade, and thousands of testimonials support its claims to genuine merit.

Retail 1/9 and 3/3 per pot.

Wholesale 14/- and 26/- per doz.

THE MARIE ANTOINETTE CO. 149 JUNCTION ROAD
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THE
QUALITY BLADE
BRITISH & BEST

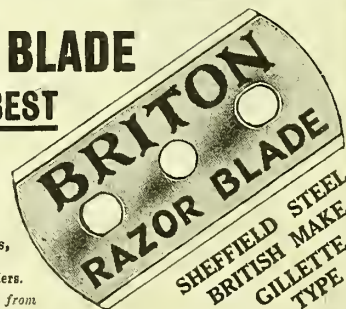
RETAILS AT
2d. EACH.

In packets of Six 1/-
(Wholesale 12/- per gross,
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Good Terms to Wholesalers.

From Wholesalers or direct from
Manufacturers

BRITISH RAZOR BLADE CO., LTD.
VICTORIA ROAD, ASTON, BIRMINGHAM





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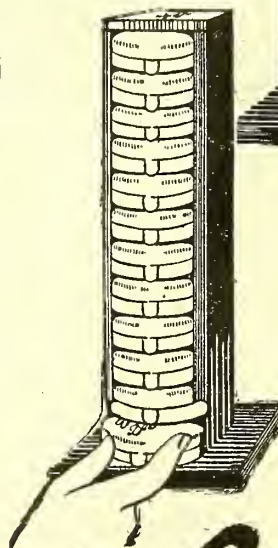
Window-Talkies

will boost your
box-office receipts

Project the dramatic messages of Gibbs new display material through your window, and the Public will register cash-down interest in your stock of Gibbs Toilet Preparations.

These brilliant, colourful display pieces talk in charming persuasive tones to every passer-by.

Send at once for our 'Talkies' folder telling you how to get this powerful sales-making advertising matter.



A novel and most useful Counter Server made in tin.

Effectively coloured. You sell tins of Dentifrice from it. Stands 9½ ins. high.

Top picture shows front view.

Gibbs Dentifrice

D. & W. GIBBS, LTD., LONDON, E.1.

GDT 24

MASON PEARSON

HAIR-BRUSH

*The Brush
which is
asked for*

There is only one hair-brush which is equally suitable for people of both sexes and all ages:—The "MASON PEARSON" Brush. It brushes much more quickly than any other brush. It brushes more efficiently. It cleanses the scalp more gently and thoroughly than any other brush. It disentangles long hair without tugging it, and restores the "set" to ruffled hair.

The reason is that all "MASON PEARSON" Brushes are made of the most perfect hair-brushing material—the black unbleached bristle of the Indian Wild-Boar—which, arranged by our special patented method in a pneumatic rubber cushion, makes the highest grade Hair-Brush obtainable to-day.

The "MASON PEARSON" Brush is known and asked for everywhere by its name.

The brushes are made in eight models, retailing from 3/6 to 18/6, all subject to generous discounts giving you a substantial living profit. Can be supplied through your usual wholesaler.



MASON PEARSON SELLING AGENCY, LTD., 59 NEW OXFORD ST., LONDON, W.C.1

"ODENTIC" PLATE BRUSH

Regd. No. 417637.

From all
Wholesalers.

Packed in 1/2-dozen Display Boxes.

Manufacturers:

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Agent for S. Africa—C. GORDON DAVIES & CO.,
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G. B. KENT & SONS, LTD.

Are known the World over as
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BEST BRITISH BRUSHES

Please write for full Particulars to:—
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ESTAB. 1847.

Telegrams: "Coate, Axminster."

COATE & CO. (Axminster) Ltd.

The London Brush Works, Axminster, Devon
Manufacturers of Super British Brushes

Our Special "PROPHYLACTIC" Tooth Brushes—

3 row Hard, Medium, Soft, Yellow Hair at	- - - -	16/- per dozen
4 " " " " " " " "	- - - -	18/- " "

Every Brush Guaranteed.

Orders for one gross supplied in Cartons with customer's name and address free.

British made by British Labour.

Send for our present list of prices.

Full range of samples can be seen at ROBERT W. PHILLIPS, Craven House, Kingsway, London, W.C.2

Always Selling

MYATT
DAYMARK
BLADES

For double-edge razors.

Five for 1/3

50%

Profit on cost

Sole Manufacturers:

W. J. MYATT & CO. LTD., Birmingham

**a new
Swedish blade**

*with a
powerful
selling
appeal*



Matador
gives 3 shaves more

Distributors:

THOS. CHRISTY & CO.
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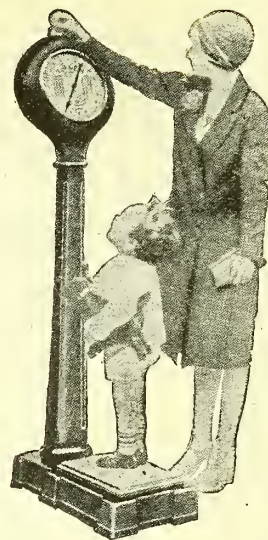


MATADOR is a safety blade made of Swedish tempered ribbon steel—the finest in the world for safety blades. It is sharper. It lasts longer.

An extensive advertising campaign for Matador Blades has commenced. Advertisements are appearing regularly in STRAND MAGAZINE, WIDE WORLD MAGAZINE, HUMORIST, JOHN BULL, PASSING SHOW, TIT-BITS, PUNCH, etc.

A wide and steadily increasing sale is assured. Send your order now.

Each advertisement features the unique selling point—



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**Let this Gem
make money for you!**

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At the well-known Scottish watering resort Dunoon this summer the drawings from one Gem were over £13 in one week, the total for a single month being over £30.

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Can you afford to be without this high class revenue-maker?—which works for you without attention.

Ask us for name of your nearest Gem Agent, who will gladly demonstrate. Get particulars of the attractive terms of purchase.

THE GEM
AUTOMATIC WEIGHING
MACHINE CO. LTD.
48 NEW CITY ROAD
GLASGOW, C.4



A brilliant searching radiance with entire absence of distracting and harmful glare—that is a reason for installing

COSMOS Pearl LAMPS

METRO-VICK SUPPLIES

(Prop. Associated Elect. Industries, Ltd.)

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Cross Road, London, W.C.2



S.B.
130

CELLOPHANE

The ideal transparent wrapping absolutely harmless, air and grease proof, as used by all the leading Perfumers, Soap Manufacturers, etc., etc., for wrapping Soaps, Drugs, Tablets, Bath Crystals, Perfumery, Surgical Dressings, Sponges, Puffs, Soothers, Tooth Brushes and all Articles of Toilet.

Cellophane can be had in sheets, all sizes and colours; also in the shape of **Bags, Discs, Envelopes** printed or not, allowing the contents to be seen by transparency.

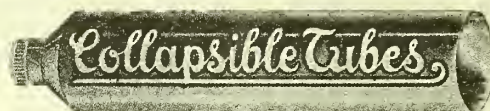
Cellophane wrapped goods look better—keep better—sell better.

Cellophane protects, beautifies, and adds the quality touch.

Prices, Samples and Particulars from

The CELLOPHANE COMPANY LTD.
7, 8 and 9 Bird Street, LONDON, W.1

Also 305-7 PRODUCE EXCHANGE, MANCHESTER.
35 MILLER STREET, GLASGOW.



"TINALLUM" TUBES

25% to 30% Cheaper than Tintubes
100% Superior to Tincoated Lead Tubes

Safe for TOOTHPASTE, COLD CREAM, VANISHING CREAM, SHAVING CREAM, &c. Artistic decoration. Coloured caps.

Literature and Samples on request.

AGENTS WANTED IN BRITISH DOMINIONS.

ANDERSEN & BRUUNS FACTORIES LTD.
COPENHAGEN F., DENMARK.



**Distinctive
EUPAX
Cork Top Seals**



Eupax Cork Top Seals give that "finishing touch" to bottles. You can have your own wording in any colour to the size of the illustrations, on best quality white chromo paper, at the following prices per 1,000

5,000, 5/7 10,000, 3/8 25,000, 2/7

CHEAPER QUALITY CAN BE SUPPLIED IF REQUIRED

WILLIAM SESSIONS Ltd
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Olympia
London, W.¹⁴

February 17
to
February 28



THIS year the Fair will be more comprehensive than ever before in the new surroundings at Olympia.

The Chemical, Drug and Perfumery Sections have long assumed International importance and will receive especial attention from Home and Overseas buyers.

A SPECIAL SUPPLEMENT IN COLOUR

will be inserted in

THE CHEMIST & DRUGGIST OF FEBRUARY 15.

In order to assist exhibitors in focussing interest on their particular products a suitable announcement will not only obviate an original preparation being overlooked but it will stimulate the curiosity of visitors in the general display.

All particulars regarding available space in this supplement from

THE PUBLISHER

THE CHEMIST & DRUGGIST
42 Cannon Street, London, E.C.4

Telephone :

Telegrams :

Central 3617 (3 lines): "Chemicus, Cannon, London."

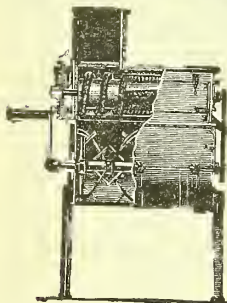
49 County Buildings
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MANCHESTER

54 Foster's Buildings
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19 Waterloo Street
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AUCKLAND, NEW ZEALAND

perfect blending



Gardners "Rapid" Sifter and Mixer gives a perfect blend. The special Internal Agitator ensures accurate sifting and mixing of materials, irrespective of the diversity of their proportions; if necessary, $\frac{1}{2}$ oz. can be perfectly blended with hundredweights.

Write us for list of Ball Mills, Disintegrators, Millstones and Mills, Drum Sieves, Drying Machinery, etc.

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Patent "RAPID"
SIFTER & MIXER**

Wm. GARDNER & Sons (Gloucester) Ltd.
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Tel. Gloucester 2288 (2 lines).

Grams: Gardner, Gloucester.

NEW PATENT Blutergess Sifting Machine

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SIEVES WIRE GAUZES

STEVENS & MANNING
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USIEVEIT—Boro—London

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OBTAINABLE OF ALL WHOLESALE HOUSES

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SAFETY RAZOR BLADES

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Correspondence
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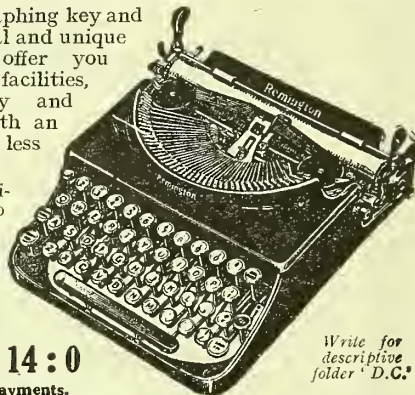
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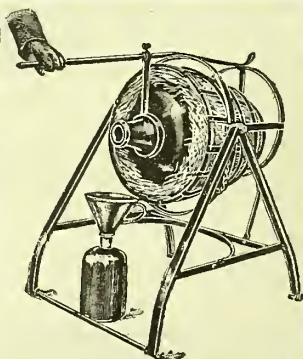
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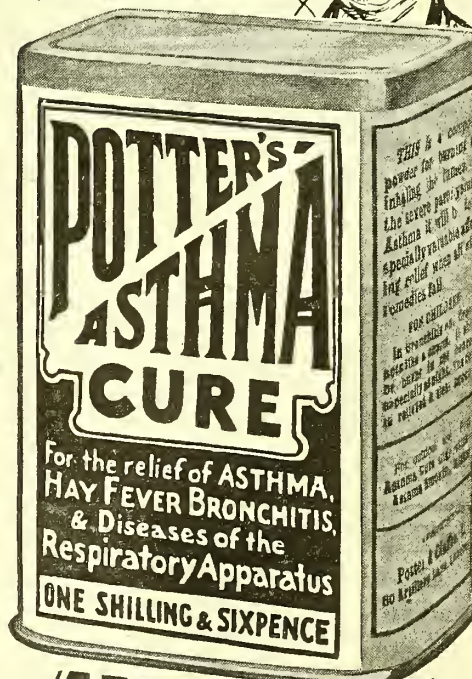
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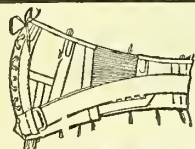
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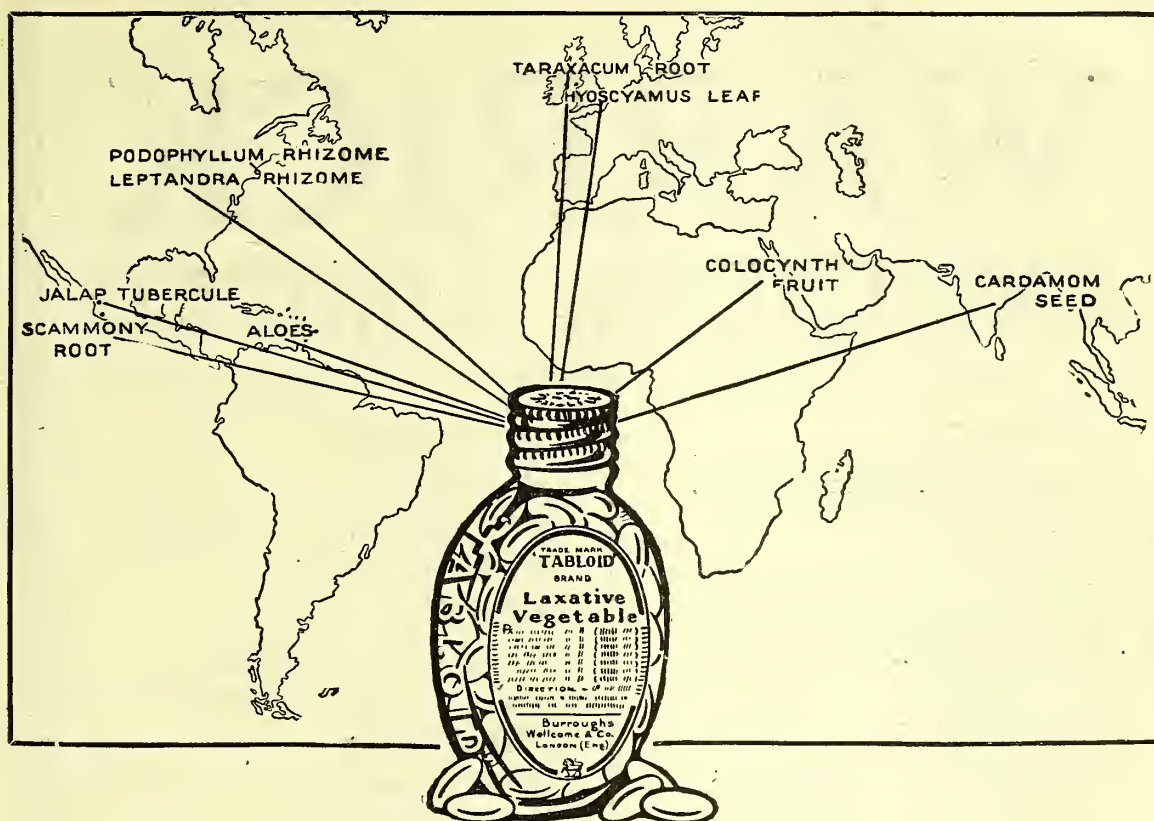
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Gazette

Partnership Dissolved

BLOXAM, A. G., SHIELDS, T. H. IMRAY, O. Y. WAGHORN, J. W., and GROVES, W. W., 30 Southampton Buildings, London, W.C.2, consulting chemists and chartered patent agents, under the style of Abel & Imray.

Bankruptcy Acts

ADJUDICATION

DOWNHAM, L., Redisher Farm, Holcombe, near Bury, and lately at Waterfold Mills, Heap Bridge, Bury, advisory chemist, under the style of the Crescent Chemical Co.

RECEIVING ORDER AND ADJUDICATION

ELLIOTT, B. F. J., lately residing at 53 Festing Road, Southsea, Portsmouth, chemist's manager and dispenser.

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Matriculation Standard for Opticians

At a recent meeting of the Council of the British Optical Association, the following resolutions were passed:—That (a) after January 1, 1931, every candidate, irrespective of age, must have passed the matriculation examination of a British university, or the Preliminary examination of the British Optical Association, or an examination recognised by the British universities as being equivalent to the matriculation standard; (b) after January 1, 1931, the Modified examination be dispensed with irrespective of age; (c) after July 1, 1930, the Supplementary examination be dispensed with in the case of candidates holding the diplomas of the Spectacle Makers' Company, and after January 1, 1931, in the case of D.B.O.A. candidates; (d) the dispensing, mechanical, and craftsmanship sections of the examination be further developed.

Proposed Registration of Grocers

In the current issue of "Grocery" an outline of proposed regulations drafted by Mr. N. Harrison, of Portsmouth, for the registration of grocers is given. The main provision is that after the date of the order no person shall be registered as a grocer unless:—

(1) He has passed through a proper indentured apprenticeship, served either with a grocer registered in accordance with the terms hereof or with a grocer who has been wholly or mainly engaged in such trade for the three years immediately preceding the date of this order; or unless

(2) He has passed the qualifying standard laid down by a board constituted in pursuance of this order, such board to consist of one member from each of the following bodies: The Institute of Certificated Grocers; the Federation of Grocers' Associations of the United Kingdom; the Federation of Scottish Grocers' and Provision Merchants' Associations; the Provision Importers' Association; the Tea Brokers' Association; and the Ministry of Health; sitting under a chairman selected from a trade body other than one connected with the grocery trade.

It is also proposed that the registration of shops shall be effected under the supervision of sanitary authorities and public health departments, as in the case of milk vendors.

Contracts

The following tenders have been accepted by the bodies named:—

Oakham Guardians.—Mr. P. Matkin, chemist and druggist, drugs, etc.

Stockport Infirmary.—J. C. Arnfield & Sons, Ltd., drugs.

Liverpool

The original date for the annual meeting of the Liverpool Chemists' Association was accidentally given in our last week's issue. The revised date is January 23.

Inquiries in Liverpool indicate that as yet the number of automatic machines for the sale of drugs is very limited. In some hotels in London and other cities there are such machines, and in some places it is quite common for chemists to own such machines and wheel them out on the pavement at closing time. Here and there such machines are to be seen in Liverpool in front of the shops of smaller dealers, but there are not many. There is one in a theatre, but it is inaccessible to the public. The danger arises from machines in the streets and under no supervision.

Manchester

The annual general meeting of the Manchester, Salford and District Branch of the Pharmaceutical Society (tennis section) will be held at the Clydesdale Club, Turner Street, on January 29, at 8.30 p.m. Subscriptions are now due, and will be accepted on that evening.

The annual social event of Oldfield, Pattinson & Co.'s staff held recently at the Ducie Hotel, Manchester, was a great success. High tea was followed by a whist drive conducted by Mr. Booth, and the prize-winners were: *Ladies*, (1) Miss L. Young (office), (2) Miss E.

Simmons (office), hidden number, Mrs. Peplow (girls' room). *Gentlemen*, (1) Mr. A. E. Gloyne (travelling staff), (2) Mr. S. Edwards (despatch department), hidden number, Mr. Lee Smith (wet room). Dancing followed to music by a trio conducted by Mr. B. Eastwood (office), with community singing in between, and the party closed with the singing of "Auld Lang Syne" and the National Anthem.

The new chemistry, physics and biology laboratories of the Manchester Tutorial College, 327 Oxford Road, which were opened on January 14, are a great advance on anything of the kind that has previously been in vogue in Manchester. The laboratories are commodious and well lighted, and the ventilation has been made effective without being of a "draughty" nature. The system of central heating which has been adopted will undoubtedly tend to make the students' work more congenial. Under the expert tuition of Mr. J. E. Grime, B.A., B.D., director of studies and his staff of teachers, students who require guidance to ensure the acquisition of a medical, dental or pharmaceutical qualification are well provided for. The number of acceptances to the invitation to attend the opening ceremony was 275; among those present was Professor A. Dickie, the architect.

Sheffield

Chemists' accounts for Insurance dispensing during the past month amounted to £2,286.

"Some London Pharmacies of Thirty Years Ago" is the title of a lecture to be given before the Sheffield Pharmaceutical and Chemical Society, by Mr. F. Hindle, president, on January 21. Dr. Katherine Coward will address the Society shortly, and Mr. John Austen, Ph.C., will speak on "Old Sheffield Chemists" one evening in March.

As the result of petrol becoming ignited an outbreak of fire occurred on January 14 at the works of James Neill & Co. (Sheffield), Ltd., manufacturers of Eclipse razor blades. Six girls were treated at the Sheffield Royal Hospital, two for burns and four for shock. The damage to the premises was not of an extensive nature, as the flames were soon extinguished.

Miscellaneous

POISON-LICENCE APPLICATIONS.—The Stoke-on-Trent watch committee received, on January 9, a deputation from the North Staffordshire Branch of the Pharmaceutical Society, which opposed the renewal of four poison-licences. Mr. F. A. Bloor, chairman of the Branch, stated the grounds of the objection. Mr. Bloor produced a packet of sheep dip, which contained 1,000 fatal doses of arsenic, a sample of weed-killer, which contained more than 600 such doses, and a bottle containing enough nicotine to kill thirty people. There were, he added, sixty-one chemists in the city stocking such substances. It was decided by eleven votes to seven to grant the licences.—Henry S. Tett & Co., Ltd., Faversham, have applied to the town council for a licence to sell agricultural and horticultural poisons.

IN THE COURTS.—At Marylebone Police Court, London, on January 9, Bertram Hartman, bookseller, Petherton Road, N., and Charles E. Tarrant, clerk, Priory Road, N., were remanded on bail on a charge of receiving and stealing books from a branch of Boots, Ltd. A charge of conspiracy was withdrawn, and Edward K. W. Denton, librarian, Station Road, N.W., who had originally been included in the conspiracy charge, was discharged.—At Garstang, on January 9, Frederick William Wright, described as a chemist, was bound over on a charge of stealing 2½ lb. of mercury, value £1, the property of Imperial Chemical Industries, Ltd.—At Bromley, Kent, on January 10, Thomas Rickard (34), Cudham, was remanded on a charge of forging and uttering an Insurance prescription for thirty-six ½-gr. tablets of morphine sulphate.—At North London Police Court, on January 15, John Reed, Maryfield Road, Bedford, described as a traveller, was sentenced to a month's hard labour for embezzling the sum of £16 10s. belonging to his employers, Algernon Lawes, Ltd. veterinary medicine manufacturers, Hornsey Road, N.

Irish News

Brevities

Mr. A. J. McHenry, Ph.C., late of Ballymena, has taken over a pharmacy at Conway Square, Newtownards.

Mr. David Brown, who has been elected president of the North and West of Ireland Commercial Travellers' Association, is on the staff of J. & J. Haslett, Ltd., wholesale chemists, North Street, Belfast.

At a Licensing Court in Ballymena, on January 10, Mr. G. B. Caruth applied on behalf of the Rathkenny Creamery for a licence to sell methylated spirits. Inspector Small opposed the application, which was refused.

The Ministry of Home Affairs has written to the Newry Board of Guardians drawing attention to the fact that the medical officers of Mountnorris, Mullaglass and Warrenpoint dispensaries did not order any medicines, and in some of the other dispensaries of the Union requisitions for supplies were made only on one occasion during the past quarterly period. The clerk said that the dispensary doctors were supposed to order medicines every three months, but the local doctors in some places did not do that, as they did not require it. The Ministry held that medicines which were kept lost their power.

A deputation from the Association of Rural District Councils recently waited on the Minister of Labour for Northern Ireland in regard to the proposed medical benefits. The Minister of Labour stated that it was the desire of the Northern Government to keep in step with English legislation. Sickness benefit in Northern Ireland was at present being paid on a basis higher in percentage of the insured population per head than in Great Britain, and this he attributed to the want of proper medical attendance in the early stages of disease. The suggestion was made to the Minister that the Government might have considered the introduction of a system of medical benefits covering dependants as well as insured heads, and so have wiped out the dispensary system. Mr. Andrews said it was not possible to consider the suggestion at present. He felt that when the people generally understood the position they would be of opinion that working people in Northern Ireland were entitled to receive the same advantages which their fellow countrymen in the rest of the United Kingdom were privileged to enjoy.—The proposed extension of medical benefits to Northern Ireland was also discussed at a meeting of Dungannon Rural District Council, which approved of the opposition of the Rural District Councils Association to the proposed Bill.

Dublin

The premises of W. F. Wells & Son, chemists, Lower O'Connell Street, Dublin, were recently broken into and a sum of £12 in cash, together with a considerable quantity of stock, was stolen.

In the Dublin District Court, recently, Robert Swayne, sen., Robert Swayne, jun., and Margaret Swayne were charged with larceny and the felonious receipt of £13 worth of property belonging to A. de St. Dalmas & Co., Ltd., Middle Abbey Street, in whose employ Robert Swayne, jun., had been. It was stated that all the property had been recovered. Mr. Cussen allowed Mrs. Swayne out under the Probation Act; fined Robert Swayne, sen., 40s., and ordered him to pay £5 compensation; and bound Robert Swayne, jun., over for twelve months, and ordered him to pay £1 10s. compensation.

Canadian Notes

PROGRESS IN PHARMACEUTICALS.—During 1928, the Canadian production of medicinal and pharmaceutical preparations totalled \$17,224,351, a record figure, and nearly \$1,000,000 more than in the previous year. The principal products were prepared medicines, \$7,348,058; pharmaceuticals, \$5,680,599; toilet preparations, \$1,564,577. Some other items of interest in the 1929 total are: Medicated wines, \$90,731; disinfectants, \$6,127; hydrogen peroxide, \$38,022; iodine resublimed, \$23,356; potassium iodide, \$38,026; silver nitrate, \$39,117; flavouring extracts, \$77,992.

Roll Film Prices

It is announced that to protect photographic dealers and to counteract injurious competition the leading manufacturers of roll films on the British market have decided in a general reduction of prices and an increase in the number of exposures of the popular $3\frac{1}{4}$ in. by $2\frac{1}{2}$ in. size. So far as the public is concerned these changes take effect on April 1, on which date the retail prices will be as follows:—

No.	Size : inches	Exposures	New prices	Old prices
			s. d.	s. d.
02	$1\frac{1}{2} \times 2$	12	1 3	1 6
21	$1\frac{1}{2} \times 2\frac{1}{2}$	6	0 10	0 11
27	$1\frac{1}{2} \times 2\frac{3}{4}$	8	1 0	1 2
17	$2\frac{1}{4} \times 2\frac{1}{2}$	6	0 10	0 11
20	$2\frac{1}{4} \times 3\frac{1}{4}$	8	1 0	1 2
20	$2\frac{1}{4} \times 3\frac{1}{2}$	6	1 0	1 2
	(Autographic)			
05	$2\frac{1}{4} \times 3\frac{1}{4}$	6	1 0	1 2
16	$2\frac{1}{4} \times 4\frac{1}{4}$	6	1 3	1 5
16	$2\frac{1}{4} \times 4\frac{1}{2}$	12	2 6	2 9
01	$3\frac{1}{4} \times 3\frac{1}{2}$	6	1 6	1 8
01	$3\frac{1}{4} \times 3\frac{3}{4}$	12	3 0	3 4
18	$3\frac{1}{4} \times 4\frac{1}{4}$	6	2 0	2 0
18	$3\frac{1}{4} \times 4\frac{1}{2}$	12	4 0	4 0
24	$3\frac{1}{4} \times 4\frac{3}{4}$	6	2 0	2 0
30	$2\frac{1}{4} \times 4\frac{3}{4}$	6	2 0	2 0
22	$3\frac{1}{4} \times 5\frac{1}{2}$	6	2 6	2 6
22	$3\frac{1}{4} \times 5\frac{3}{4}$	10	4 0	4 0
25	$3\frac{1}{4} \times 5\frac{3}{4}$	6	2 6	2 6
23	4×5	6	2 6	2 6
03	4×5	6	2 6	2 6
03	4×5	10	4 0	4 0
26	$4\frac{1}{4} \times 6\frac{1}{2}$	6	3 6	3 6
19	$3\frac{1}{4} \times 4\frac{1}{4}$	6	2 0	2 0
04	5×4	6	2 6	2 6
15	7×5	6	4 0	4 4
28	$1\frac{1}{2} \times 2\frac{1}{4}$	6	0 10	0 11
29	2×3	6	0 10	1 3

The manufacturers have also decided to bring their discount into line, and this means that in future it will be 30 per cent. To compensate the trade for the reduction in price of existing stocks the new prices will be charged to dealers as from January 13, except as regards the $3\frac{1}{4}$ by $2\frac{1}{4}$ (No. 120 or No. 20) spool, which will still be supplied in six exposures at the retail price of 1s. 2d. until April 1. The individual manufacturers will accept for credit between April 1 and April 30 all $3\frac{1}{4}$ in. by $2\frac{1}{4}$ in. six exposure spools that remain unsold (after the issue of the new $3\frac{1}{4}$ by $2\frac{1}{4}$ eight exposure spools to the public on April 1) and that are returned to them carriage paid. Conditions relating to these returns will be issued by the individual manufacturers.

Italian Art

MANY pharmacists are interested in art in all its forms, and those who have the opportunity will not miss the exhibition of Italian art now showing at the Royal Academy, Burlington House, London, W.1. The exhibition will be open until March 8, and Italian masterpieces from the principal art galleries, churches and private collections in the world are on view. Among the pictures from private collections are Mantegna's "Imperator Mundi" and Titian's "Head and Shoulders of a Woman," lent by Lord Melchett. The Mantegna is in Gallery 4 (241) and the Titian in Gallery 7 (367). There is nothing of pharmaceutical interest pictorially, excepting probably Titian's portrait of "The Artist's Physician"; and the general solemnity of the subjects is lightened somewhat by Longhi's picture "The Quack" (802) from the Brera Gallery, Milan. In this the quack is standing on an improvised platform holding up a tooth which he has drawn from a boy who is seated on the edge of a platform nursing his mouth. In the South Rooms, however, the pharmacist will find some articles of definite pharmaceutical interest. There are several cases devoted to majolica ware, and in these are exhibited several beautiful specimens of pharmacy pots. In Case 946 two albarelli lent by Mr. R. W.

M. Walker, are well worth inspection. These are painted in colours, and on the front is a panel encircled by a wreath and traversed by a band inscribed, in the one case DIA CASSIA, and in the second SVCCO VIOLADO. These are dated 1524, and another albarello lent by Mr. Henry Oppenheimer is dated "about 1500." The last-mentioned has a laurel-crowned bust of a Roman Emperor on the front and a spray on the back. Sir Otto Beit has sent five pharmacy jars, one of them being in the form of a bottle with a long narrow neck painted in colours. On the body of the vase is a greyhound running, and in a panel above a band is inscribed A CAPILLV. The date of this is given as about 1480, and beside it are two specimens with two handles of the type known as "oak-leaf" jars. These are painted in a thick dark blue and manganese purple, and there is a representation on each of a crutch with a green staff, this being the badge of the hospital of Santa Maria Nuova at Florence. Besides these, there are in the same case (948) two pharmacy jars (also belonging to Sir Otto Beit) of Albarello form. These are painted in colours, and on the back of each are the initials BO in blue. The "oak-leaf" jars are dated about 1450 and the albarelli about 1515.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Tuesday, January 21

North London Pharmaceutical Association. Meeting at 8.30 p.m., North Library, Manor Gardens, Holloway Road. Address by Mr. R. Fouracre, Ph.C., on "Radium—Its Present-day Use in Hospitals."

Photographic Dealers. Meeting of pharmacists engaged in photographic trade, North Library, Manor Gardens, Holloway Road, at 8.15 p.m., for the purpose of forming a branch in North London of the Photographic Dealers' Association.

The Royal Institution of Great Britain, 21 Albemarle Street, London, W.1. First lecture on "Isotopes," by Dr. F. W. Aston, at 5.15 p.m. Second and third lectures to be given on January 28 and February 4.

Wednesday, January 22

Liverpool Chemists' Association. Annual children's party, Royal Institution, Colquitt Street, from 4 p.m. till 9.30 p.m.

Manchester, Salford and District Branch of the Pharmaceutical Society. Joint meeting of the Junior Section and the University Students' Association. Medicine Lecture Theatre, The University, Coupland Street, at 3 p.m. Lecture on "Wave Motion," by Mr. G. A. Sutherland, M.A.

Edinburgh and District Chemists' Trade Association. Annual Burns dinner. Tickets, 9s. 6d. each, from secretary, Mr. J. Adamson, 18 St. Mary Street, Edinburgh.

Portsmouth and District Branch of the Pharmaceutical Society. Meeting at Southsea Club, Kent Road, and address by Mrs. J. K. Irvine, M.B.E., superintendent of the S.E. Pricing Office, on "The Part the Chemist Plays in N.H.I."

Birmingham Pharmaceutical Association. Students' dance at the Botanical Gardens from 7.30 till 12 p.m. Tickets, 5s. 6d., from Mr. D. J. Rushton, 1088 Stratford Road, Birmingham.

Altior Old Students' Society. Annual reunion, Ward's Café, Leeds. Members and old students of the Leeds College of Pharmacy invited. Application for tickets to be made not later than January 20. Members free; non-members and friends 3s. 6d. Mr. L. Lineham Smith, secretary, 5 Highfield Terrace, Kingston Road, Leeds.

Guild of Public Pharmacists. Address by Dr. Adolphe Abrahams on "The Human Machine: its efficiency and limitations" at Westminster Hospital, Broad Sanctuary, London, S.W.1, at 7.30. Light refreshments.

Thursday, January 23

Liverpool Chemists' Association. Annual meeting, Royal Institution, Colquitt Street, at 8.30 p.m.

North-East London District Pharmaceutical Association. Meeting at St. John's Institute, Urswick Road, Hackney, 3 p.m. Address by Mr. A. R. Melhuish, vice-president Pharmaceutical Society.

Friday, January 24

Pharmaceutical Society of Great Britain, North British Branch, 36 York Place, Edinburgh. Third evening meeting of the session at 8 p.m. Proceedings—"Stabilisation and Fermentation of Belladonna Leaves," by Mr. J. P. Todd; "Colouring Effects of Iron," by Mr. Eric Knott; "Dispensing Notes," by Mr. J. Rutherford Hill.

The Royal Institution of Great Britain, 21 Albemarle Street, London, W.1. Discourse by Sir William Bragg, F.R.S., on "Cellulose in the Light of the X-Rays," at 9 p.m.

Legal Reports

A Deal in Senna Pods.—At the Central Criminal Court, London, on January 15, William H. Watts, agent, Sotheby Road, N., was sentenced to three months' imprisonment in the second division for fraudulently converting to his own use the sums of £75 13s. and £42 18s., obtained from Mr. B. T. Peyton, drug merchant, Fenchurch Street, E.C., in respect of a shipment of senna pods (*C. & D.*, January 4, p. 4). A detective said that after leaving school Watts became an office boy with a firm of druggists' merchants. He left that firm in 1914 to join the Army, and he was discharged with a good character. In 1919 the defendant went into business on his own account as a druggists' merchant in the Minorities. That business lasted until 1926.

Dangerous Drugs Acts.—At Skipton, recently, Mr. Charles C. Dutton, chemist and druggist, Addingham, was charged on seven counts with having supplied "dangerous" drugs to unauthorised persons, and with failing to keep "dangerous" drugs in a locked receptacle. His wife, Mrs. Catherine E. Dutton, had to answer seven charges of aiding and abetting. A police superintendent said that on December 30 a sergeant visited Mr. Dutton's shop and asked to see the dangerous drugs register; he found that although purchases were entered there were no entries as to sales. However, in the poisons book there were several entries of the sale of "dangerous" drugs to unauthorised persons. Mr. Dutton, owing to illness, could not be seen by the police, and when eventually he was told that he would be reported, he replied: "I have never sold them. I have not dispensed for over twelve months. I cannot afford to pay a qualified man £6 a week." Mrs. Dutton replied, "I supplied them. I have been dispensing doctors' prescriptions for over twelve months." Mrs. Dutton was unqualified. The defence was that Mr. Dutton, owing to a nervous breakdown, had not been able to attend to his business, and his wife had attempted to care for him and look after the business at the same time. The Bench imposed a fine of 4s. on each count, amounting to a total of £3 4s.

Unqualified Vendor Fined.—In Greenwich County Court, London, on January 10, the Pharmaceutical Society of Great Britain, obtained judgment in the sum of £5 against Mrs. Rose Kenner, Brownhill Road, Catford, S.E., for having sold lysol, she not being a qualified person. Mr. W. J. C. Quarrell appeared for the plaintiffs. The registrar inquired whether time to pay would be required by the defendant, and the husband said that the business was only a small one, and he had to go out to work independently, so that he could not offer more than 10s. a month. A question arose as to costs, Mr. Quarrell saying he had brought three witnesses to prove his case. The procedure in various courts was different. He had brought an analyst to prove that lysol was a poison, and that it came within the description of poisons. He had brought the inspector who would have given evidence as to the actual sale of the poison, and another witness to prove that the defendant was not on the Register of Chemists and Druggists. He asked that the analyst's fee of £3 3s. be allowed and 10s. each for the other two witnesses. The registrar said it was a first offence, so he would only allow £2 2s. for the analyst and 10s. each the other two witnesses. He would make an order for payment at 10s. a month.

Illegal Use of Title.—In Bloomsbury County Court, London, on January 13, the Council of the Pharmaceutical Society of Great Britain sued the Arcade (Brixton) Pharmacy, Ltd., Market Road, Brixton, S.W., to recover the sum of £5. The claim set out that the defendants on October 15 last used and exhibited an advertisement of "chemists" on their premises, contrary to the Pharmacy Act, 1868, Sections 1 and 15, and to the Poisons and Pharmacy Act, 1908, Section 3 (4). Mr. H. Glyn-Jones, barrister, appeared for the Pharmaceutical Society, and Mr. Taylor, barrister, for the defendants. Miss Margaret Dick, an inspector to the Pharmaceutical Society, deposed that on October 15 there was a sign hanging over the shop, and it read: "Arcade (Brixton) Pharmacy, Ltd. Retail Chemists. Articles at cut prices."

Mr. Arthur Stevens, a partner in a photographic firm, and Mr. Alfred Plowright, an officer of the Pharmaceutical Society, gave formal evidence. Counsel for the defendants said he would call no evidence. This business was only purchased a few days before the inspector called; it belonging to quite a prominent firm before that time, trading in the name of the Arcade (Brixton) Pharmacy, Ltd., and that name was over the shop. There was really no defence to the claim. Judge Hill-Kelly said it was not necessary for him to express any opinion on the case. There would be judgment for the plaintiffs for a £5 penalty and costs.

"Cattle Cod-Liver Oil."—At Exeter Police Court, on January 10, before the Mayor, Messrs. H. Hall, E. C. Perry, J. Stocker, Philip F. Rowsell and Dr. J. S. Steele-Perkins, Francis Fox & Co., Little George Street, Bristol, were summoned for having sold goods to which a false trade description was applied. They pleaded "Guilty." Mr. H. E. James, who prosecuted on behalf of the Ministry of Agriculture, stated that the summons was brought under the Merchandise Marks Act in respect of twelve barrels of cod-liver oil sold to G. E. Bell & Sons, Exeter. The goods were described as cattle cod-liver oil, but what was sold was an admixture of sperm oil and cod-liver oil, which could not reasonably be described as cod-liver oil. Mr. Dutton, the Devon county analyst, found that the mixture contained 50 per cent. each of cod-liver oil and sperm oil, while the Government chemist had rated the mixture at 60 per cent. sperm oil and 40 per cent. cod-liver oil. The invoice was marked "Cattle cod-liver oil." No suspicion was cast in any way on Messrs. Bell & Sons, who, had they known the analysis of the oil, would not have purchased it. Sperm oil was not really an oil at all, but a mixture of waxes taken from the tooth-bone of the sperm whale. It had practically no feeding value of any kind, and was very indigestible. A farmer buying this mixture was, in fact, being supplied with a mixture 50 per cent. of which was practically worthless for feeding purposes. Mr. M. J. McGahey, who defended, said he would have contested the case vigorously had there been any suggestion made of intention to defraud. He understood that to obtain a conviction under the Act it was not necessary to prove that there was any intention to defraud, and that was why he had entered a plea of "Guilty." Francis Fox & Co. were established in 1813, and were one of the oldest and most respected firms in the trade in Bristol and the neighbourhood. In the whole period of their existence they had never had a charge of this description brought against them. This was the first case of the kind that had been brought before any Court in the country. Messrs. Fox & Co. freely admitted, and had never attempted to deny, that the oil was an admixture of cod-liver oil and sperm oil. His clients were experts, and it had been found by farmers that pure cod-liver oil was too nauseous for the cattle to take. There had been no attempt to foist an inferior article on the public. The mixture was sold by defendants at 39s. 6d. per cwt., and the profit obtained was between 1s. 6d. and 2s. per cwt., which was less than 5 per cent. If pure cod-liver oil were used it would cost the consumer from 48s. to 49s. per cwt. The firm had manufactured this article for years, and had never had any impression that it could not be sold as cattle cod-liver oil. Directly the Ministry took the sample and their attention was drawn to the fact that the description might deceive the purchaser they immediately stopped using the name, and now, as they were perfectly entitled to do, they sold the mixture under the name of "cattle feeding oil." Defendants also kept in stock the pure cod-liver oil, which they now sold under the description of "cattle cod-liver oil." This was sent to anyone who asked for cod-liver oil, and as a result they were receiving scores of complaints from purchasers who said that their animals would not take it, or that they had trouble in getting them to take it, and asking that the old mixture should be forwarded to replace it. The Mayor said the magistrates felt that they must register a conviction, but the fine would be a merely nominal one of £1 and costs. The prosecution was also allowed an advocate's fee of £5 5s.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

IRWIN'S PHARMACY, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemists, druggists, etc. The directors are: J. Irwin and E. Crawford-Mawhinney. R.O.: 35 Great Victoria Street, Belfast.

GILL & DUFFUS (GLASGOW), LTD. (P.C.).—Capital £3,000. Objects: To carry on the business of general merchants in all its branches. The directors are: F. G. Gill, A. S. Duffus, C. B. Kershaw and N. C. Reddell. R.O.: 266 Clyde Street, Glasgow, C.11.

GILL & DUFFUS (LIVERPOOL), LTD. (P.C.).—Capital £7,000. Objects: To carry on the business of general merchants, importers, exporters, etc. The directors are: F. G. Gill, A. S. Duffus, C. B. Kershaw, C. H. Fuller and A. S. Snel. R.O.: 8 Victoria Street, Liverpool.

CAUSEWAY PHARMACY, LTD. (P.C.).—Capital £300. Objects: To carry on the business of wholesale and retail chemists and druggists, etc. The subscribers are: Miss V. A. Marshall and I. C. Wood, M.P.S. Solicitors: Dixons, Ward, Umney & Burden, Richmond, Surrey.

L'ONGLEX LABORATORIES, LTD. (P.C.).—Capital £6,000. Objects: To acquire the business of a manufacturer of and dealer in toilet preparations, perfumery, soap, etc., carried on in England by S. Barker, together with the trade mark "L'onglex" used in connection therewith. The subscribers are: F. A. S. Gwatkin and S. Cronin. Solicitors: McKenna & Co., 31-4 Basinghall Street, E.C.

CHOCASPRIN, LTD. (P.C.).—Capital £200. Objects: To carry on the business of chemical and medicine manufacturers and in particular manufacturers and sellers of the preparation known as "Chocasprin." The life directors are: H. V. Dodd, F.C.S., M.P.S., wholesale druggist, G. R. Newman and L. Snazelle. Solicitors: Bullen, Debenham, Harston & Bennett, 52 and 53 Cheap-side, E.C.2.

TAYLORS (CASH CHEMISTS) LONDON, LTD.—Lists in connection with the offer of 250,000 £1 seven and a half per cent. Preferred and 250,000 1s. Deferred shares were closed at 10 a.m. on Saturday morning, January 11, the issue having been heavily oversubscribed.

J. L. THOMAS & Co., LTD.—The co-partners of J. L. Thomas & Co., Ltd., soap manufacturers, Exeter, have had distributed to them shares and cash to the extent of £5,776 in exchange for their nominal co-partnership trust shares, 7 per cent. cumulative preference shares in Uni-Lever being received. The chairman of Thomas & Co., Ltd., has been asked to thank the directors of Lever Bros., Ltd., for what is considered to be a most generous distribution.

Private Arrangements

William Parkinson, 189 Bell Lane, Bury, drug store proprietor.—A meeting of the creditors was held on January 3 at Manchester, when a statement of affairs was submitted which showed ranking liabilities of £849 9s. 8d., made up as follows: trade creditors £439 1s. 2d., cash claims £75 8s. 6d., and balance outstanding for purchase of business £335. In addition there was a fully secured creditor for £62, who held security valued at £93 8s. 4d. After allowing £12 10s. 3d. for preferential claims, the net assets were £182 12s. 6d., or a deficiency of £666 17s. 2d. The assets comprised stock £230 11s. 7d., estimated to realise £153 14s. 5d.; life policy £10; and surplus from fully secured creditor £31 8s. 4d. It was reported that the debtor commenced trading on October 19, 1928, when he agreed to pay £500 for the stock, fixtures and goodwill. A deposit of £10 was paid and the balance was to be discharged by weekly payments of £2 10s. The premises were held on a weekly tenancy. The household furniture was claimed by the debtor's wife. One creditor was in possession, but it was hoped that he would withdraw. No offer was submitted, and during the discussion the opinion was expressed that efforts should be made to sell the business as a going

concern. A resolution was passed confirming the deed of assignment already executed to Mr. A. T. Eaves, C.A., of Harry L. Price & Co., 47 Mosley Street, Manchester, and it was decided that the trustee should collaborate with Mr. Parkin S. Booth, of the Association of Manufacturing Chemists, Ltd., with regard to the disposal or otherwise of the business. The following are creditors: Brook, Parker & Co., Ltd., £36; Brooks, J., & Co., £22; Crompton, W., £38; Hirst, Brooke & Hirst, Ltd., £12; Kodak, Ltd., £23; Woolley, James, Sons & Co., Ltd., £151.

Wills

MR. WILLIAM TAYLOR ALEXANDER, J.P., of Crummock, Eccles, Lancs., chemical manufacturer, died on June 24 last, leaving property of the value of £45,688 6s. 3d., with net personality £34,847 7s. 11d.

MR. JOSEPH JOHN WEBB, of 19 Culverden Park Road, Tunbridge Wells, chemist and druggist, who died on November 21, aged fifty-nine, left estate of the gross value of £1,434 8s. 2d., with net personality £1,390 14s. 3d.

MR. WILLIAM DUNCAN, Ph.C., F.C.S., of 16 Cumin Place, Edinburgh, and of the Royal Dispensary, Edinburgh, who died on September 16, aged sixty-nine, left personal estate in Great Britain valued at £28,060 18s. 10d. Probate is granted to his widow, Elizabeth Ada Sophia Duncan, of the same address.

MR. JAMES HICKMAN IZOD, of 41 Church Road, Upper Norwood, S.E., chemist and druggist, who died on October 31, aged seventy-three, left estate of the gross value of £7,091 0s. 5d., with net personality £6,983 10s. 1d. Probate of his will has been granted to his son Herbert William Izod, metal trades valuer, of the same address, the sole executor.

MR. JOHN ROBINSON, of 125 South Lambeth Road, South Lambeth, S.W., chemist and druggist and sub-postmaster, who died on October 28 last, aged sixty-six years, left estate of the gross value of £2,003 14s. 6d., with net personality £1,652 17s. 7d. Probate of his will has been granted to his widow, Mrs. Gertrude Minnie Augusta Robinson, of the same address, the sole executrix.

MR. OCTAVIUS WILLIAM EVANS, of 153 Northfields Road, Kings Norton, Birmingham, formerly of The Green, Bournville, Birmingham, chemist and druggist, who died on August 26 last, aged fifty-eight, left estate of the gross value of £2,330 10s. 9d., with net personality £2,264 6s. Probate of his will has been granted to his widow, Mrs. Amy Evans, of the same address, the sole executrix.

MR. SAMUEL THOMAS FORD WEIGHT, of 4 Sudbrooke Road, Nightingale Lane, Balham, S.W., chemist and druggist, sales manager to S. Maw, Son & Sons, Ltd., left estate of the gross value of £3,673 9s. 5d., with net personality £2,522 3s. 5d. Probate of his will has been granted to his widow, Mrs. Florence Weight, of the same address, and Leonard Henry Christie, underwriter, of Hillcrest, The Glade, Kingswood, Surrey.

MR. EDWIN HENRY COLE, of Denver, Leatherhead, chemist and druggist, who died on October 4 last, left estate of the gross value of £13,650 12s. 1d., with net personality £4,608 9s. 10d. Probate of his will, dated August 7 last, has been granted to his widow, Mrs. Elizabeth Cole, and his daughter, Miss Muriel Annie Cole, both of the same address, and Frederic Edmund Hutton, auctioneer, of High Street, Leatherhead.

MR. JAMES ARTHUR PHILLIPS, of 5 Queen's Garth, Forest Hill, S.E., and formerly of 70 Laurie Park Road, Sydenham, S.E., chemist and druggist, of Knowles & Phillips, of 47 Minories, E., who died on November 2, aged seventy-eight, left estate of the gross value of £4,584 16s. 3d., with net personality £4,512 0s. 3d. Probate of his will has been granted to his widow, Mrs. Florence Elizabeth Phillips, of the same address, the sole executrix.

Green Face Powder

By H. Stanley Redgrove, B.Sc., A.I.C.

As a colour for face powder, green seems to be quite *outré*. There is an old saying that envy turns the complexion green; but here the word is used only figuratively; and one might suppose that the only use of cosmetics to tint the complexion green would be on the stage, when a character in a state of sickness had to be portrayed. This, however, is by no means the case; and cosmetics, such as face powder and grease paints of a green colour have important uses both on and off the stage. At one time, bright green was much employed in making up for the cinema stage. The introduction of panchromatic films and improved lighting conditions, has, however, wrought a revolution in the art of cinema make-up. Make-up in much more natural colours, especially various shades of brown, is required; and the bright greens and yellows demanded by films of the ordinary type are rapidly becoming things of the past. In making up for the legitimate stage, however, green is distinctly useful as an eyelid shading. The colour adopted for this purpose should be determined by that of the hair and the eyes. Bluish-green is best in the case of blondes with hazel or green eyes, and is very suitable in many cases where the hair is red. On the other hand, the best effects are obtained in the case of blondes with blue eyes of not too pale a shade by using a greenish blue. Finally there is green face powder intended for everyday use, especially under conditions of electric lighting. There is, perhaps, no better means of toning down a too florid complexion than a light application of a semi-transparent powder of a pale green tint. Powder of this type has a measure of popularity, but its utility is by no means as widely recognised as it deserves to be. It is remarkable that cosmetic literature contains very little information concerning the preparation of green and greenish blue cosmetics of the colouring type. Winter's "Handbuch der gesamten Parfumerie und Kosmetik" contains some recipes for green grease-paints and powder-compacts in which the colouring matter employed is ultramarine in combination with cadmium yellow or cadmium yellow *plus* yellow ochre. Yellowish-greens can be obtained along these lines; but the colour of ultramarine is so "hot," or reddish, that if a large proportion of it is employed in the attempt to produce a bluish green, a grey-green results. There should, one would think, be no difficulty in obtaining lakes of an entirely innocuous character in various shades of green. As a matter of fact, however, inquiries I have made in several quarters for such lakes have not yielded satisfactory results.

DYES OR PIGMENTS

Face powder can be tinted by means of water- or spirit-soluble dyes. The use of pigments, however, obviates any possibility of the colour running under the influence of moisture; and excellent bluish shades of green, which are absolutely permanent, can be obtained by means of cobalt green, used either alone or in conjunction with a little cobalt blue. Cobalt green can be prepared by roasting together zinc and cobaltous oxides or substances which give these on heating. It seems not to be a definite chemical compound, but rather a solid solution of the two substances. In consequence, the colour is rather variable, as it depends on the relative proportions of zinc and cobalt present. I am indebted to the kindness of the Blythe Colour Works, Ltd., Stoke-on-Trent, for the cobalt green used in the experiments on which this paper is based. It is their No. 1 brand, and is guaranteed to be free from deleterious impurities. When a pigment is employed to tint face powder, all that is necessary is to grind the face powder and pigment together. The grinding, however, must be thorough; and, after grinding, it is advisable to sift the tinted powder. In giving formulas, it must be clearly realised that these should be treated as bases for experiment. Readers desirous of preparing green face powder should try out the formula selected on a small scale, and then make any adjustments found to be necessary. Apart from the exact tint desired, two other factors play an important part in determining the exact proportions to employ, namely (i) the quality of the pigments, and (ii)

the nature of the powder basis, its colour and opacity. Substances described as white often differ markedly in colour, even the same substance prepared by different methods may exhibit different colours. Zinc oxide, for example, is described as "white"; actually it may be creamy white or bluish-white. The following formulas are suggested:—

	A	B	C
Ultramarine	2.0	nil	nil
Cadmium sulphide, pale yellow, arsenic-free	3.2	nil	nil
Yellow ochre	1.2	nil	nil
Cobalt green	nil	5.0	4.5
Cobalt blue	nil	nil	0.5
White face powder	93.6	95.0	95.0

Formula A, which follows along the lines of Winter's formulas, gives a yellowish-green shade, which looks somewhat grey in artificial light. Formula B, probably the best, although the simplest, gives a nice, clean, bluish-green; whilst formula C produces a green of a very distinctly bluer shade than formula B.

The Cost of an Epidemic

By "Prophylax"

IN the report of the discussions between the Ministry of Health and the Retail Pharmacists' Union which appears on page 16 of THE CHEMIST AND DRUGGIST for January 4, a resolution passed by the Conference of Pharmaceutical Committee delegates in October 1929 was quoted, "in which the opinion was expressed that the drug fund is insufficient because of recurring epidemics." The reply of the Ministry to this contention was to the effect that "they could not accept the view that the drug fund was necessarily insufficient," and that "there was no likelihood during the remaining three years of the contract of the recurrence of any deficit of sufficient magnitude to justify an appeal for additional funds." On page 20 of the same issue of the *C. & D.* are to be found certain statistics relating to the prescriptions dispensed for insured persons in London during the first nine months of the year 1929, and a comparison is made of these with the figures for the same period of 1928.

It will be remembered that there was an influenza epidemic in the early spring of 1929; therefore, if prescription costs were inflated as a consequence of that epidemic, the increase will be included in the figures referred to. London is always taken to be the largest single Insurance area in the country, and because of its size may be representative of most of the other industrial areas. If there are, in round numbers, 15,000,000 insured persons in the whole country, then London deals with about one-seventh or one-eighth of the total Insurance business. It seems useful, therefore, to examine these figures in some detail. It should be remembered that even small fractions of a penny must be taken into account when the number of prescriptions dealt with runs into millions.

There is a difference of one-tenth of a penny between the average prescription-cost for the two years, that for 1929 being the lower figure. On adding the corresponding total numbers, however, it will be found that there is an increase of approximately £16,000 in the cost of all prescriptions for 1929 over that for 1928. Failing any other explanation, it might be concluded that the large increase in the number of insured persons accounts for the increase in prescription-cost; but if one has the leisure to investigate further, one may find that this does not explain the increase adequately. In fact, it can be calculated that the increase in the number of prescriptions for 1929 was in a greater proportion than the increase in the number of insured persons, for while the number of persons for 1929 was 1.25 per cent. more than for 1928, the increase for 1929 in the case of prescriptions was over 9 per cent. Now, if the number of prescriptions given to each person in the years 1928 and 1929 is obtained by calculation, the fact is revealed that the patients treated in 1929 each required a quarter of a prescription more than those treated in 1928. If it is asked, "Why were more prescriptions required by the people who were ill in 1929 than the sick persons in 1928 received?" the obvious answer to the query is "Influenza."

But before we draw our conclusions, let us pursue the matter of cost a little further. The average cost of each whole prescription is about eightpence, so that the extra quarter of a prescription to which reference has been made would cost about twopence, and this would account for the difference of over 1½d. shown between the cost per person for 1928 and 1929. That extra quarter of a prescription with which it has been found necessary to treat the insured persons in London during the first nine months of the year 1929 has been an expensive item, for in the aggregate it must have cost London chemists, or more accurately (as the chemists' fund is calculated on a national basis) the chemists of the whole country, nearly £14,000. And if it can be assumed that a similar increase was general throughout the country, then that quarter of a prescription must represent a loss to the chemists' fund of something approaching £100,000, due, it may again be suggested, to influenza. Figures, of course, may be made to prove anything—or alternatively, perhaps they do not prove anything; and it may be that this investigation—which was prompted by a perusal of the report of the Ministry conference—does not satisfactorily prove anything that is useful to us in our contention regarding epidemics.

THE INCREASE EXPLAINED

Yet, if that is so, it is curious that further research only reveals what appears to be confirmation of the views expressed. For recent back numbers of the *C. & D.* provide further statistics relating to the cost of the prescriptions given to insured persons in London, and these appear to show that the cost during the summer months of 1929 was less than in 1928; that only seems to throw into greater prominence the extra cost for the earlier—i.e., the influenza—months of 1929. It could not be claimed that the whole of the extra cost of prescriptions in any area during the spring of 1929 was due to the epidemic. But, apart altogether from the calculation of an exact mathematical assessment, it must surely be admitted that an epidemic does make serious inroads into the funds provided to meet the cost of the medical treatment of insured persons; and while it may be true, when only one isolated year is taken into consideration, "that the drug fund is not necessarily insufficient," as contended by the Ministry, there is a possibility, owing to a heavy incidence of sickness of considerable severity occurring in periods during succeeding years, that the contention of the R.P.U. might also be true and "the drug fund prove to be insufficient because of recurring epidemics." The position should be—and no doubt will be—watched very closely by chemists' representatives; and if there is definite indication that special seasons are seriously depleting the funds, application for special consideration should again be made, in spite of the fact that the contract seems to be fixed for the next three years.

Associations' Winter Session

Belfast.—The monthly meeting of the Ulster Retail Drug Trade Association Committee was held in Belfast on January 7, Mr. John Adams (president) in the chair. The Subcommittee on Press Advertising reported that the matter of selecting articles was considered and specimen copies were being prepared. With reference to the trading stamp scheme, cases were reported and dealt with. Members are asked to forward to the secretary the names of grocers in their area who are giving trading stamps on P.A.T.A. articles. A letter from the Ministry of Home Affairs was read stating that "no fees are chargeable by Petty Sessions clerks in respect of methylated spirit renewal certificates," and that the Minister is advised that "it will be necessary for chemists to appear in person when applying for certificates unless they are represented by a solicitor."—The committee has issued a notice to the trade on the question of trading stamps, discounts to public guilds and banks, and price cutting of proprietary articles. The committee felt that, if allowed to continue, such schemes would endanger seriously the strength and prestige of the Association. In their discussions with the Chamber of Trade it was found that the retail drug trade was the only organised body of traders in Northern Ireland.

Western Australian Sandalwood Oil

By Ernest J. Parry, B.Sc., F.I.C., F.C.S.

THERE has been a tendency recently to assign to the essential oil known as "Western Australian sandalwood oil" certain characters which are not those of any single distillate from any one plant. I have been informed that a monograph on the chemistry and botany of all the oils known under the name of sandalwood oil is to be published during the next few months, and it therefore appears necessary to ensure that the scientific description of the oils should be accurate from the point of view of the scientific records of essential oils, free from the trammels of commercial descriptions.

So far as I am aware—and thirty-five years ago I visited the Australian districts producing the trees which were then used for distillation purposes—the main source of the original oil sold as Western Australian sandalwood oil was the tree which has been known under various names, but which has now been identified by the Kew authorities as *Eucarya spicata*. I do not think it necessary to reproduce all the figures which have been published for the oil, as it is not easy to trace the source of the material used for distillation. But the figures observed by Penfold in his recent contribution to this subject ("Journal and Proceedings of the Royal Society of New South Wales," LXII, 60), and which were taken from an oil distilled from the wood of *Eucarya spicata* by himself, are sufficiently characteristic. These figures are as follows:—

Specific gravity	...	...	0.9485
Optical rotation	...	...	−4°
Refractive index	...	...	1.5020
Solubility in 70 per cent. alcohol	...	...	...
(by volume)	...	...	not in 10 volumes
Ester number after acetylation	...	...	179

These figures may be taken as typical of those for West Australian sandalwood oil, being the product of *Eucarya spicata*.

In the course of the paper by Penfold above referred to, he states "No valid reason has been advanced as to why the Australian oil cannot find a market on its own intrinsic merits as the product of *Eucarya spicata*." With this dictum I heartily agree, and I now pass on to the characters of an oil distilled by Penfold from the wood of *Santalum lanceolatum*. This oil had the following characters:

Specific gravity	...	...	0.9446
Optical rotation	...	...	−61°
Refractive index	...	...	1.5055
Solubility in 70 per cent. alcohol (by volume)	...	...	in 7.5 volumes
Ester number after acetylation	...	...	193.4

The characters of both oils can, obviously, be altered by rectification and separating the various fractions.

But it appears from Penfold's work that a commercial oil exists which is in fact a mixture of the two oils just described. In such a mixed oil Penfold finds almost 90 per cent. of sesquiterpene alcohols, of which almost half are santalol (although strangely enough Penfold has not, so far, found any santalol in either of the oils distilled by himself. The characters of these two oils would definitely suggest that there is very little true santalol in the oil of *Santalum lanceolatum*, but that what there is, is to be found in the oil of *Eucarya spicata*.

I do not know, therefore, why the former should be mixed with the latter, with, probably, the lowering of the true santalol content. I realise, of course, that such mixed oils have an optical rotation different from that of either oil, but—*cui bono?*

In any scientific description of these two Australian sandalwood oils I think the expression, "Percentage of alcohols as santalol" is not the proper wording. As at least half, or more, of the alcohols consists of bodies which are not santalol, the wording should be—

"Percentage of sesquiterpene alcohols of which almost — per cent. is santalol."

I trust that the above note will ensure a proper scientific description of the Western Australian sandalwood oils in any future authorities.

Personalities

MR. J. A. FROST, Langley Mill, has been appointed a justice of the peace for Derbyshire.

COUNCILLOR D. J. BAILEY, chemist and druggist, Blackpool, is president-elect of the local chamber of trade.

MR. B. HOLDEN, chemist and druggist, Blackburn, has been elected chairman of the Corporation Sewage Committee.

MR. J. B. FRITH, chemist and druggist, Rochester, recently addressed the local rotary club on "The Business of the Pharmacist."

MR. JOHN T. CROSS, chemist and druggist, has now retired after completing forty-eight years in business at Wingate, co. Durham.

MR. R. O. GRIFFITH, chemist and druggist, Pwllheli, has been elected a member of the committee of the local chamber of commerce.

MR. W. KEELING, chemist and druggist, Welshpool, has been installed Worshipful Master of the Welshpool Lodge of Freemasons, No. 998.

AMONG the newly-appointed members of the Great Yarmouth Insurance Committee are Mr. H. Palmer, chemist and druggist, Market Place, and Mr. A. E. Richmond, chemist and druggist, St. Peter's Road.

IN recognition of fifty years' service with Thomas Morson & Son, Ltd., manufacturing chemists, London, W.C., Miss O. Bowden has been presented with a cheque and a piece of furniture by the directors and other gifts by the employees.

MR. R. A. DANIEL, B.A., son of Mr. A. W. Daniel, chemist and druggist, Forest Gate, London, E.7, has passed the final examination of the Institute of Chartered Accountants. Mr. Daniel was educated at the East Anglian School, Bury St. Edmunds, and Emmanuel College, Cambridge.

CERTIFICATES OF NATURALISATION have been granted to G. Brudno (known as Hirsh Brudno), medical practitioner,

241 New Cross Road, Deptford, London; B. Haine, chemical and dental representative, 114 Adelaide Road, Hampstead, London; C. Malamud (known as Charles Marian), medical practitioner, 90 Oxford Gardens, North Kensington, London; J. Shlosberg, medical practitioner, "Winterfield," Bury New Road, Higher Broughton, Salford.

MR. S. B. EASON, treasurer of the Local Executive of the Cardiff meeting of the British Pharmaceutical Conference, was born in Liverpool in 1877, and after serving four years' apprenticeship with Mr. Frank Jones, Ph.C., of that city, had further experience in Birkenhead, Seacombe, Manchester, Crewe, Salisbury, London, Bristol and Cardiff. After qualifying he purchased the business of the late Mr. H. Little, Tudor Road, Cardiff. For the past twenty-two years he has been an active member of the Cardiff Pharmacists' Association. In 1914 he was elected vice-president of the Association, and in the following year president, and then achieved the unique distinction of occupying the presidential chair a second time. He acted as secretary to the Cardiff Pharmaceutical Committee for the first three years of the National Insurance Act, during which period he did much useful spade work, and only relinquished the position on account of ill health. At the present time he is chairman of the local branch of the Pharmaceutical Society, vice-chairman of the local branch of the Retail Pharmacists' Union, and vice-chairman of the Pharmaceutical Committee. Mr. Eason is a successful and energetic business man of the progressive type, keenly interested in all matters affecting the craft.



MR. S. B. EASON



GRANVILLE SHAW.

A VERY SPECIAL KEY

It is suggested that one of the special keys of the Chelsea Physic Gardens, allotted to exalted personages (C. & D., January 11, p. 38), will be loaned to members of the Council of the Pharmaceutical Society and their friends who desire to perfect their studies in *Papaver somniferum*. The first contingent is seen arriving.

Trade Notes

COATES & COOPER, 41 Great Tower Street, London, E.C.3, have been appointed distributors for the specialties of the Gomenol Laboratories, Paris.

OINTMENT TINS.—The Caldicot Tin Stamping Works, Ltd., Caldicot, Chepstow, invite chemists who pack ointments and other preparations of a similar nature to write for samples and prices of decorated tins.

STEWART'S SHAMPOO POWDERS.—The wholesale price of the 4d. shampoo powders manufactured by Stewart, Goodall & Dunlop, Ltd., should read 14s. per dozen boxes of seven sachets, and not as printed in the *C. & D. Diary*, 1930.

PAPIER POUDRÉ, LTD., 46 Baker Street, London, W.1, announce that they are now in a position to give immediate delivery of all tints of Papier Poudré, the shortage which compelled rationing during the past few months having been overcome.

RALEIGH CARRIER CYCLES, which have a reputation for withstanding the roughest usage, can be purchased for cash or on the instalment system. Further particulars and the address of the nearest agent may be obtained from the Raleigh Cycle Co., Ltd., Nottingham.

ENO'S BONUS.—J. C. Eno, Ltd., 160 Piccadilly, London, W.1, inform us that, in connection with the bonus on sales of Eno's Fruit Salt, all customers in the British Isles who by virtue of their purchases during 1929 have qualified for the bonus, are now being notified.

PERFUMES AND FLAVOURING ESSENCES.—Burnell Hardy, Ltd., 106 Queen Victoria Street, London, E.C.4, who are the agents in this country for Felton Chemical Co., Inc., Brooklyn, U.S.A., refer in their advertisement in this issue to aroma bases, which simply require diluting to produce high-grade essences, and Solv-o-hol, a substitute for alcohol in the manufacture of flavouring extracts and non-alcoholic perfumes.

DIGITALIS LEAF TABLETS.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, have introduced physiologically standardised tablets of digitalis leaf, each tablet containing 0.033 gm. ($\frac{1}{2}$ gr.) International Standard leaf, equal to one-third International Unit. It has recently been shown that there is as wide a range of variation as 140 per cent. in the activity of different samples of English leaves, and such diversity can be avoided only by employing biological assays.

F. C. CALVERT & CO., LTD., Bradford, Manchester, are now using on their tins of tooth powder a sealing band which greatly facilitates the opening. Writing in regard to it, the company state: "We feel sure that you will agree with us that this 'new easy-opening band' is little short of an epoch-making advance in the packing of Calvert tooth powder. During the last thirty years we have experimented with every type of patent and self-opening tin, every type of patent band, which has come to our notice, as well as putting tapes and strings under the band to make it tear off easily, but it is only during the last few months that we have brought our experiments to the successful conclusion that you will find on examining the tins."

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of any British patent can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Colloidal White Lead.—Process for the production of colloidal white lead (basic lead carbonate) by the treatment of lead oxide with carbon dioxide in the presence of water and a substance to accelerate the reaction. (Th. Goldschmidt, Essen Ruhr. 297,116.)

Administering Anæsthetics.—Process of administering anæsthetics by utilising the exhaled breath of the patient to warm the anæsthetic prior to inhalation by means of an absorptive filter or other suitable apparatus. (I. G. Farbenindustrie, Frankfort-on-Main. 322,790.)

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1930, p. 341.

(From "The Trade Marks Journal," January 8, 1930.)

- "SAL DE FRUTA"; "FRUIT SALT (SAL DE FRUTA)" with label design incorporating grapes, word "Eno," etc.; for a medicinal saline preparation (3). By J. C. Eno, Ltd., 160 Piccadilly, London, W.1. 505,842; 507,603. (Associated.)
- "COOPER'S 'SAY 99' COUGH TABLETS" with tablet design and words "Your Family Doctor" ("Cooper's"; "Say 99"; "Your Family Doctor" and tablet design disclaimed); for cough tablets (3). By A. Cooper, Ltd., 74 Humberstone Gate, Leicester. 507,493.
- "BUR-TI-NI"; for an antiseptic ointment (3). By Burtini Laboratories, 233 Lower Clapton Road, London, E.5: 507,583.
- "LICORICINE" with label design of witch; for cough medicine, etc. (3). By Mandall & Co., Ltd., 17 Stepney Road, Newcastle-on-Tyne. 507,167. (Associated.)
- "BACTÉ-COLI-PHAGE"; "BACTÉ-STAPHY-PHAGE"; for medicinal chemicals (3). By Le Laboratoire du Bacteriophage, 52 Rue de Bourgogne, Paris. 508,161/162. (Associated.)
- "HEIDOSCOP"; "ROLLEIDOSCOP"; "ROLLEIFLEX"; for photographic cameras, etc. (8). By Franke & Heidecke, Viewegstrasse 32, Brunswick, Germany. 506,110/111/112. (Associated.)
- "GLEN MARIANNE SHEA" facsimile signature, "BELTX" in circle, and silhouette portrait; for sanitary belts (11). By Beltx Corporation, 1511 Bell Telephone Building, St. Louis, Missouri, U.S.A. 505,649.
- "JULIUS"; for beverages (42). By Kia-Ora, Ltd., 35 to 38 Rushworth Street, Blackfriars, London, S.E.1. 507,285. (Associated.)
- "MOUSON" with conventional floral design in frame ("Mouson" disclaimed); for perfumery, etc. (48). By J. G. Mouson & Co., Gewinnerstrasse 9, Frankfurt-on-Main, Germany. 505,360.
- "JOHNSON'S BABY SOAP"; for perfumed soap for infants (48). By Johnson & Johnson (Gt. Britain), Ltd., 106 Golden Lane, London, E.C.1. 493,734. (Associated.)

(From "The Trade Marks Journal," January 15, 1930.)

- "BROMOR"; for photographic goods (1), (8) and (39). By Union Chimique Belge Société Anonyme, 61 Avenue Louise, Brussels, Belgium. 505,910/911/912. (Associated.)
- "DUMINOX"; for chemicals (1). By S. Wills & Co., Ltd., Castle Green, Bristol. 508,707.
- "PROTUS"; for agricultural chemicals, etc. (2). By The Protoid Co., Ltd., Kelvininside, Seacombe, Liverpool. 506,530.
- "GLACIA"; for agricultural chemicals, etc. (2). By E. J. Reid & Co., Ltd., 35 Gordon Square, London, W.C.1. 507,830.
- "NIKOSAN"; for agricultural chemicals, etc. (2). By W. N. Spence, 57-58 Chancery Lane, London, W.C.2. 507,099. (Associated.)
- Composite design of section of human body and leaves; for medicinal chemicals (3). By "Cristallo" A.G., Thusis, Switzerland. 501,475.
- Design of instrument case in circle; "VENTRAEMON"; for medicinal chemicals (3). By Naamlooze Vennootschap Organon Tot Bereiding Van Organopreparaten Op Wetenschappelijke Grondslag, Kloosterstraat, Oss, Holland. 507,054; 508,372.
- "ARVIIN"; for medicinal chemicals (3). By Johnson & Sons, Manufacturing Chemists, Ltd., Hendon Way, London, N.4. 508,010.
- "ULTRAECIN"; for medicinal chemicals (3). By Boots Pure Drug Co., Ltd., Station Street, Nottingham. 508,270.
- "NESTOSYL"; for anæsthetics (3). By P. E. P. Baude, 72 Rue Saint Dominique, Paris, France. 508,304.
- "MISTUREX"; for medicinal chemicals (3). By Hough, Hoscason & Co., Ltd., Sun Buildings, Bridge Street, Manchester. 508,544.
- "VIBETO"; for medicinal chemicals (3). By Allen & Hanburys, Ltd., Plough Court, 37 Lombard Street, London, E.C.3. 508,632.
- "VELVEX"; for dental impression composition (11). By Associated Products, Ltd., 31a Denmark Road, West Ealing, London, W.13. 508,404.
- "FRAILAC"; for milk and milk preparations (42). By Cow & Gate, Ltd., Cow & Gate House, Stoke Road, Guildford, Surrey. 508,494.

Marriages

DRAKE—MACDONALD.—At St. Andrew's Church, Southport, on January 6, Asa Lewis Drake, chemist and druggist, Southport, to Flora Macdonald.

MARRIOTT—ROBINSON.—At St. Mary's Church, Maulden, on December 31, 1929, John Thomas Marriott, Ph.C., to Mary Robinson.

MOORE—MCCONNELL.—At Belfast, on January 15, William John Moore, M.P.S.N.I. (J. & J. Canavan, Ltd., chemists), Portadown, to Janet Winifred (Winnie), daughter of the late Rev. James McConnell, Megain Memorial Presbyterian Church, Belfast.

RAYNE—DONALD.—At the Grand Hotel, Glasgow, on January 9, William Allan Rayne, chemist and druggist, Coathridge, to Elizabeth Donald.

WOODCOCK—EBBAGE.—At Great Yarmouth, on January 14, George Thomas Woodcock, M.P.S., 17 Northgate Street, son of Mr. T. J. Woodcock, M.P.S., to L. M. Ebbage.

Deaths

COOPER.—At his residence, 400 Belcher's Lane, Little Bromwich, on January 7, Mr. James Cooper, managing director of James Cooper (Small Heath), Ltd., dispensing chemists, 366 Green Lane, Small Heath, Birmingham, and brother of Mr. Ernest Cooper, M.P.S.

FISHER.—On January 8, Mr. George Howard Fisher, chemist and druggist, 155 Walmer Road, London, W.11, aged fifty-five. Mr. Fisher, who was a prominent freemason, leaves a widow and a daughter.

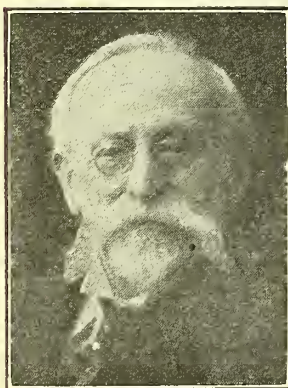
HARTLEY.—At 278 Westminster Road, Liverpool, on January 10, Edith Eleanor, the beloved wife of Mr. Thomas Hartley, chemist.

HUTCHINS.—At 36 Lower Kennington Lane, London, S.E.11, recently, Mr. Edward Coxhead Hutchins, chemist and druggist. Mr. Hutchins qualified in 1890.

LEWIS.—At 1 Bridewell Street, Bristol, on January 8, Mr. Edward Arnott Lewis, chemist and druggist, proprietor of Peake & Co., chemists, aged fifty-six.

PILLISCHER.—At 9 Carlton Hill, St. John's Wood, London, N.W.8, on January 8, Mr. James Jacob

Pillischer (J. Pillischer, Ltd., scientific instrument manufacturers, 88 New Bond Street, London, W.1), aged ninety-one. The business with which Mr. Pillischer was connected was founded in Oxford Street, W.1, in 1843 by his uncle, Mr. Moritz Pillischer, who came to London from Hungary after experience in various continental centres. Mr. Moritz Pillischer set a very high standard of workmanship for all his optical, surgical and other instruments; and his *clientèle* included members of the British Royal Family and several foreign sovereigns.



MR. J. J. PILLISCHER

He is mentioned in Charles Kingsley's "Two Years Ago." Mr. J. J. Pillischer succeeded his uncle as proprietor in 1894.

SHORT.—At Taunton, recently, Mr. George William Short, chemist and druggist, 50 High Street, aged eighty. Mr. Short had been in business in Taunton for fifty-three years, and was in his shop only two days before his death, making arrangements for a sale of fixtures and effects consequent upon his intention of retiring. He matriculated at London University at the age of fifteen, and was well known as an accomplished student

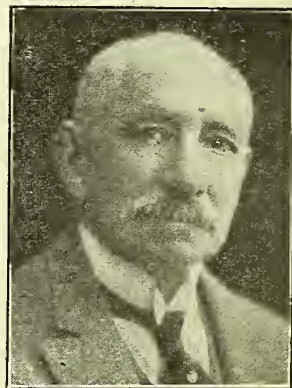
of literature. In science his favourite subjects were astronomy and botany. He had the distinction of being chosen to lecture in connection with the Shakespeare Tercentenary celebrations in 1916. For about fifteen years Mr. Short was secretary of the Taunton Literary and Philosophical Society, and when he relinquished that office he was presented with a purse of gold and illuminated address in acknowledgment of his services. For forty years he was closely associated with St. Mary's Church, Taunton. Mr. Short is survived by two sons, Mr. Cuthbert Short, Taunton, and Mr. Wilfrid Short, Bromley. At the funeral, which took place on January 7, the Taunton Literary Society was represented, and many other friends attended.

WEAVER.—In London, on January 9, suddenly, Sir Lawrence Weaver, K.B.E., aged fifty-five. Sir Lawrence Weaver, who was well known as an attractive writer on various subjects, chiefly architectural, recently joined the board of directors of J. C. Eno, Ltd. He was chairman of Council of the National Institute of Agricultural Botany from 1919 to 1924.

WOOLF.—At 94 Balsall Heath Road, Edgbaston, on January 2, Mr. Lewis Woolf, chairman of Lewis Woolf, Ltd., manufacturers' and druggists' sundriesmen, Anchor Works, Windmill Street, Horse Fair, Birmingham, aged seventy-eight. Mr. Woolf was well known in the druggists' sundries trade, in which he had many friends throughout the country. The business will be continued by his son, Mr. B. Woolf, the managing director.

LEVIN.—At Blackpool, recently, Mr. Horace Victor Levin, chemist and druggist, aged forty-three.

MATTHAEI.—At Breslau, recently, Mr. Maximilian Joseph Matthaei, chemist and druggist, aged sixty.



MR. LEWIS WOOLF

Business Changes

MR. W. E. CLARKE, Ph.C., has removed to new premises at 28 High Street, Strood.

MR. H. HARRIS, chemist and druggist, has acquired the business of Mr. R. H. Quin, chemist and druggist, 430 Talbot Road, Blackpool.

HORLICKS MALTED MILK CO., LTD., have removed their Manchester warehouses from 30 Withy Grove to 708 Chester Road, Stretford. Telephone: Trafford Park 1664-65.

The warehouses of Parkes, Chemists, Ltd., 65 Harmond Street, N.W.1, and Mortons Cash Chemists, Ltd., 33 John's Mews, W.C.1, have been transferred to the new warehouse of Taylors Drug Co., Ltd., Abbey Road, Park Royal, London, N.W.10.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

A/131. Allipon Rupella	A/21. Lycetin liver extract
S/111. Atlas skin preservative	M/151. Oxydoin ointment
B/3012. Buer's Mul-la	B/71. Scherk cold cream
B/71. Camphetol jelly for colds	M/151. Sulfoform (London agency)
S/91. Frankenia aluminium hot-water bottle	M/151. Sulphosan
E/151. Guarantol egg preservative	A/131. Terrol petroleum jelly
	B/71. Zocking eczema cream

Observations and Reflections

By Xrayser III

Automatic Machines

appear to be coming into the pharmaceutical limelight, now that the president of the Pharmaceutical Society has thought the time opportune for referring to their use as distributors of medicinal substances (*C. & D.*, January 11, p. 38). For reasons which are not altogether clear, Mr. Parry condemns this use of the machines, root and branch; but the matter cannot be dismissed so summarily, even by one occupying his elevated position. As I pointed out four months ago, the selling of packed goods through the medium of automatic machines is only one step further in the direction of simplifying the handing out of such articles, and so saving time for attending to other profitable business. Moreover, there is always the risk that, if chemists do not take prompt steps to secure the business in automatic supplies of drugs, that business will drift away into unqualified hands. Possibly, too, Mr. Parry does not realise that automatic machines can be installed inside shops and made to serve a distinctly useful purpose there. As I read his statement, he seems to have had in mind more particularly the installation of machines outside shops, and perhaps in places entirely apart from chemists' places of business. But is it conceivable that supplies of wanted articles will not be forthcoming in such places, even though every member of the Pharmaceutical Society in retail business refuses to furnish them? Who actually packs the goods which are sold through the medium of automatic machines, and will the packers' cease business if orders do not come through chemists? These are pertinent questions which Mr. Parry may be expected to answer, in addition to providing satisfactory reasons for classing potassium permanganate as a poison.

Mr. Parry States

that there is nothing to prevent a child obtaining "poisons" such as potassium permanganate or "potent drugs" (*sic*) such as aspirin from automatic machines. But is there anything to prevent a child from obtaining the articles mentioned in the ordinary course of retail business? There may be chemists and druggists who would not supply them to children, but is there such a well-established practice to the contrary that Mr. Parry is justified in using this particular illustration as a possible danger attaching to the use of automatic machines? Again, his reference to articles sold in the form of sugar-coated tablets was quite beside the mark, since the tablets would necessarily be enclosed in cartons which mask the appearance of the contents. By the way, what would be likely to happen if compressed tablets of potassium permanganate were coated with sugar? And is it usual for aspirin tablets to be sugar-coated? These questions may appear unusual in this place, but Mr. Parry's "reasons why, in the public interest, the sale of drugs from automatic machines is to be deplored" leave me wondering at the attitude of mind of himself and his advisers who assisted him in drafting his amazing statement.

Compliments are Due

to your contributor who comments so wittily and logically upon your report of the visit to the Ministry of Health of a deputation from the R.P.U. (*C. & D.*, January 11, p. 47). As he points out, no one can read that report and note the result of that interview without realising how weak the chemist's position really is when it comes to a discussion with a Government department. His second paragraph made me smile, as I pictured the chemists' representatives dutifully telling their little story and then listening meekly to the politely-worded refusal of the "adamantine officials" to take any steps in the direction of providing for more generous remuneration. If any of your readers interested in the matter has not yet read the article by "Long Sufferer," let me beg him or her to peruse it at once. Careful perusal can hardly fail to carry conviction into the mind of any reader that there is something wrong with

the system which makes presentation of the chemist's case so futile in results. It is presumably hopeless to expect that the question of remuneration can now be reopened before 1932, but I join with your contributor in urging that the whole field of pharmaceutical insurance service be resurveyed.

Looking Back

to the foundation of the School of Pharmacy (*C. & D.*, January 11, p. 58), it is not possible to avoid remarking what an excellent beginning it had with so fine a staff of teachers as Dr. Anthony Todd Thomson, Dr. Pereira, Mr. Fownes and Mr. Redwood. Pereira and Redwood are familiar names even to the present generation of pharmacists; that of Fownes is beginning to fade except for the few who began their chemical career with his "Manual of Chemistry." Anthony Todd Thomson was not so closely bound to pharmaceuticals as his brethren, but he is worthy to be brought to recollection at this time because of the active part he took a hundred years ago in agitating for the establishment of a School of Pharmacy in London. In 1812 a number of apothecaries in London met together to take steps to provide measures whereby uneducated persons should be prevented from practising as apothecaries, accoucheurs, midwives, dispensing chemists, etc. Part of their programme was to obtain authority to establish suitable examinations; and in connection with this suggestion it was stated that "there is in London another defect, which we will cursorily mention, and that is the want of a regular School of Pharmacy. The apothecaries' shops in England do not furnish those means of instruction in this important science which are necessary to form a good pharmacist. . . . A school, therefore, should be established in this metropolis, where all these sciences and arts [chemistry, materia medica and botany] would be practically taught and illustrated, especially pharmacy, even to the very manipulations of the art."

At that Time

Thomson was comparatively a young man (he was thirty-four years old), and took a prominent part in these activities, which were, of course, inimical to the druggists of that day, who were regarded as poachers on the preserves of the apothecaries. These efforts of the associated apothecaries, so far as they related to the founding of a pharmacy school, came to naught, but they doubtless did much in the way of opening the eyes of the chemists and druggists to the need for such a school for the training of their own pupils. The fine spirit and liberal views of Anthony Todd Thomson are shown by the readiness with which he offered his services as Professor of Botany to the Pharmaceutical Society when its school was founded in 1842; he was then sixty-four years of age. His enthusiasm in the cause of medicine and its allied branches of science was unbounded. Thomson was born in Edinburgh and was a graduate of its University. In the first decade of the last century he began to practise in London, and as early as 1810 began a course of lectures in medical botany which was the only one of its kind in London for many years. When the London University, as it was then called (later it was University College), began operations in 1828, he was appointed Professor of Materia Medica and Therapeutics. His association with the Pharmaceutical Society was not a long one, but it continued until his death in 1849. It was through his influence that the lectures to his pharmacy students were given at the Royal Botanic Society's Gardens in Regent's Park at seven o'clock in the morning. The labours of Dr. Thomson and his manifold interests were remarkable. He compiled his "Conspectus of the Pharmacopœias"; he wrote a large work in two volumes on the "Elements of Materia Medica and Therapeutics"; he was responsible for the "London Dispensatory," which first appeared in 1811 and had a career of about fifty years; he published his lectures on the "Elements of Botany" in 1822, and wrote a great number of articles for the medical and pharmaceutical journals; he also made a translation (in two volumes) of Salvette's "Philosophy of Magic," and conducted a practice yielding £3,000 per annum. Thomson was a remarkable man.



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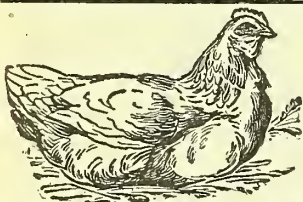
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Editorial Articles

Use of Automatic Machines

On various occasions during the past eighteen months attention has been directed in the pages of THE CHEMIST AND DRUGGIST to proposals for the employment of automatic machines for the sale of medicines in the form of compressed tablets, lozenges, powders, etc., enclosed in suitable packages. Chemists and druggists were being asked to consider the installation of such machines inside or outside their premises, and even in places farther afield. The idea underlying proposals for using the machines inside a pharmacy was that their use for articles in frequent demand would relieve pressure upon those serving at the counter at busy times, by enabling customers to help themselves to convenient-sized packages of, say, soda-mint, cascara or aspirin tablets, throat pastilles, cough or other lozenges, and so forth. Naturally, installation of a machine outside the shop would enable customers to obtain similar articles after the usual business hours, also on Sundays and holidays. A still further development forced upon the notice of chemists was to arrange for supplies of various medicaments being obtainable from machines installed for them in the lounges of hotels and in other public places. At this stage, it began to dawn upon logical minds that the idea of mechanical sales, effected without the direct agency of any human seller, is hardly consistent with maintenance of the principle that medicines should only be dispensed and sold by duly qualified persons. Sales from automatic machines inside the shop were perhaps only a shade removed from sales of ready packed goods by unqualified assistants under the supervision of a legally qualified principal or manager. But mechanical sales outside the shop, after regular shop hours, brushed away even the idea of qualified supervision, while the exchange of packages for coins in a machine fixed in a hotel lounge was obviously free from the faintest suspicion of personal contact between the buyer and any human seller. It was, in fact, apparent that chemists who yielded to the temptation of making profits, and perhaps securing advertisement, by furnishing supplies of packed medicines for sales from automatic machines installed in premises apart from their own were weakening the force of the contention that the safety of the public is best safeguarded, so far as the supply of medicinal substances is concerned, by the training and qualification of the vendor. But recognition of the possibly mischievous effect of encouraging the sale of medicines by mechanical means was largely countered by fear lest refusal by chemists to become associated with automatic machines for selling drugs should lead to the adoption of the idea in other quarters. Anyone is

free to sell such articles as have, so far, been packed for sale through the medium of automatic machines, and the dealers who make a specialty of packing goods for this purpose are not likely to refrain from still offering them if orders from chemists fail to arrive. Chemists were therefore in this dilemma, that unless they took steps to retain the automatic supply of medicaments in their own hands, sacrificing a certain amount of professional principle in so doing, they were not only faced with loss of legitimate business, but also possibly driving that business into unqualified hands and risking the growth of vested interests in the supply of drugs by the unqualified. No guidance in this matter was forthcoming from the Pharmaceutical Society until a week ago, when a statement on the subject was made by the president, Mr. L. Moreton Parry, who was evidently speaking deliberately after serious consideration. But he failed to deal adequately with the subject, and force was lacking from his expression of trust that members of the Society will refuse to instal automatic machines for the supply of drugs. His reasons for asserting that, in the public interest, the sale of drugs from such machines is to be deplored were inconclusive, and we should doubt if any chemist considering the installation of an automatic machine would be influenced to the contrary by anything in Mr. Parry's statement. It would have been much more to the point if he, as president, could have informed us what steps have been taken by the Council of the Society to prepare a list of potent drugs which, in their opinion, should have their sale restricted to registered chemists. With such a list in existence, he might with good reason have advised that chemists and druggists as a class should refuse to countenance the sale of any article in the list through the medium of an automatic machine, and enforce their view by declining to transact any business with wholesale dealers offering to furnish unqualified persons with supplies of the potent drugs for sale by mechanical means. But there is no such list, and it is useless for Mr. Parry to think that any mere disapproving statement by him can compensate for the masterly inactivity of himself and his colleagues in their failure to provide means for meeting the difficulty chemists are now up against. The position as we view it is that automatic machines have come to stay, and that there is no good reason why chemists and druggists should debar themselves from making use of them in their business, provided always that this is done with proper discretion. We do not think that any chemist is justified in associating himself with the supply for sale by automatic machines of poisons or of remedial agents which it is not in the public interest that anyone but a registered chemist should be allowed to dispense or sell. Though there be no legal restriction at present upon the distribution of articles which are not scheduled poisons, chemists should agree among themselves to enforce a moral restriction, and insist upon the Council of the Pharmaceutical Society preparing an official list and taking such action as will lead in time to that moral restriction becoming a legal one. So far as the sale of simple and non-potent remedies is concerned, we see no reason whatever why chemists should not offer them through the medium of automatic machines, though

preferably only in or about their own premises. As in so many other matters, this question of mechanical sales has both a commercial and a professional aspect. As a retail trader, the chemist and druggist is entitled to take advantage of any suitable means for maintaining and increasing his business; as a pharmacist he has a duty to his profession and to those associated with him in the practice of that profession. Differentiation in these respects should not be difficult, provided that the Council of the Pharmaceutical Society can be induced to formulate a clean-cut policy of what it is desirable to achieve in the consolidation of pharmacy. This is what we postulated recently, when deploring the Council's inertia and lack of initiative in the directions that matter. We do not ask—no sane person will ask—that the Society should embark hastily upon costly and possibly fruitless attempts at legislation; but we support the claims of chemists and druggists who demand that the Council should have a comprehensible policy that will enable them to decide on principle how such problems as that involved in the use of automatic machines may readily be solved.

The Recovery in Sudan Acacia

DURING the past few weeks considerable interest has been displayed in the general position of Kordofan acacia on account of the remarkable fluctuations in values over a very short period. When dealing with the position in our issue of September 21 last (p. 349) our forecast as to the future proved singularly correct, as will be observed by the following:—

One thing appears certain, and that is that high prices will undoubtedly rule for the early positions of new crop gum. Whilst it is guesswork to estimate the extent of the new crop; it is fully anticipated that any fall in price will be gradual, as consumers cannot afford to delay the covering of their requirements. The speculative offers at present being made for new crop have not the least bearing on the situation, as obviously they are "bear" sales.

The first transactions in new crop were done up to 94s. per cwt. c.i.f. for December-January shipment, but on account of the heavy "bear" selling, no doubt influenced by the extremely large arrivals of new crop gum in the primary markets during November, there was a severe slump in values, and towards the end of December new crop was offered down to 49s. per cwt. c.i.f. Even at this low figure very little business was transacted and during the first week of this month there was a remarkable reaction, and prices rose, mainly owing to "bear" covering, to 65s. per cwt. c.i.f. for both December-January and January and February shipments. Between January 7 and 14 there was a further substantial appreciation and for the same positions up to 92s. 6d. c.i.f. was paid. Briefly, within the space of a fortnight, acacia has risen 43s. 6d. per cwt. and the market is naturally in a very excited condition. The main reason for this extraordinary change in the situation is heavy "bear" selling at very low prices combined with the substantial falling off in the arrivals of new crop gum at the primary source. It is true that the November arrivals of new crop at origin were the largest recorded at that period over a long series of years, but although the prospect of a large crop appeared certainly good, inasmuch that ample rains and high prices encourage collection, previous experience teaches us that arrivals up to the end of December are no criterion as to what may follow afterwards. In short, an early crop of acacia is by no means necessarily a large crop. For example, the arrivals of new crop gum in November last amounted to

253 tons, against 132 tons in November 1928 and 42 tons in November 1927. We give below the total shipments (tons) of acacia for the first ten months of 1928 and 1929 :—

	Hashab	Bleached	Talha	Total
Jan.-Oct. 1928	19,219	335	2,014	21,568
Jan.-Oct. 1929	12,674	209	2,921	15,804

It will be observed that the total shortage of last year's crop compared with that of 1928 amounted to 5,764 tons. Consumers this year have been very much in the back-ground and have covered very little of their requirements, feeling no doubt that the violent decline in prices at the end of December would ultimately result in a very much lower level of prices with correspondingly ample supplies of both the natural and cleaned sorts. In consequence of this optimism, consumers and dealers generally are very short of supplies of actual gum, and it is doubtful even at this period whether there is even 25 tons of cleaned Kordofan sorts available for disposal, as the bulk of the acacia in public warehouses is earmarked against outstanding contracts. Whilst the "carry over" at the beginning of 1929 was estimated as over 4,000 tons, it should be borne in mind that there was practically no "carry over" at the beginning of the present year: this is in itself a very "bullish" point, and supplies at least until the end of February will be limited. Whilst it is naturally impossible to forecast the future, there is no doubt that the severe decline in the new crop prices in December was entirely unjustified, and may involve the "bear" sellers in endless difficulties. The reaction has been correspondingly violent and the market may easily undergo further sharp fluctuations in either direction until conditions become more settled. Whilst it is at present far too early to visualise the future trend of the market, there is no doubt that if the arrivals of new crop at primary source show no marked improvement during the next few weeks, there is every indication of higher prices being secured, and spot may easily touch the high record secured last September, when 135s. per cwt. was paid ex wharf London for cleaned Kordofan sorts.

Notes on Books

The New Despotism

The public interest attracted by Lord Hewart's book on "The New Despotism" was only to be expected. When the Lord Chief Justice of England feels himself called upon to publish his views upon matters usually regarded as outside the range of judicial notice, we can safely assume that the conviction was only reached on grounds sufficient to command the attention of thinking persons. Nor is more than a hasty survey of the book necessary to satisfy the reader that its contents justify the interest which it has excited. Nothing less is aimed at than to fix attention on the thesis that the security of the ordinary citizen from arbitrary power, which was won at the cost of so much blood and treasure in the seventeenth century, is again being assailed, though by methods wholly dissimilar from those employed in the earlier struggle. The character of the assailants, too, is profoundly different. When Charles I defied parliamentary power and popular government, the struggle was an open one against a royal despotism; what we are faced with at the present time, according to Lord Hewart, is "a well-thought-out plan, the object and effect of which are to clothe the government departments with despotic powers." His lordship singles out as objects of attack the tendency to secure by Act of Parliament a power to the department concerned to modify the Act itself; and he points to the culmination of this bureaucratic usurpation in the practice of securing by the Act a power to the officials of the department to decide, without possibility of appeal,

questions arising under the Act. The Lord Chief Justice supports these charges with an impressive array of instances which must command attention, and in his analysis of how the modern usurpation has been carried out he points to a state of things for which it may be useless to provide anything short of a root-and-branch remedy. As he reminds us, the Stuart Kings openly tried to give the force of an Act of Parliament to what was then known as a "Proclamation," and what we now call a Statutory Rule and Order. As he says, "In those days the method was to 'defy Parliament, and it failed. In our days the method is to cajole, to coerce, and to use Parliament—and it is strangely successful. The old despotism, which was defeated, offered Parliament a challenge. The new despotism, which is not yet defeated, gives Parliament an anæsthetic. The strategy is different, but the goal is the same. It is to subordinate Parliament, to evade the courts, and to render the will or the caprice of the Executive unfettered and supreme."

FEW PEOPLE,

we think, fully realise the extent to which the evil here complained of has gone. An example taken at random will suffice. In the year 1927 there were forty-three public general Acts of Parliament passed, and of these twenty-six authorise the issuing by departments of Statutory Rules and Orders. The number of Orders made in that year reached the formidable total of 1,348. With the mass of legislation thus generated the ordinary citizen is condemned to struggle, although his first acquaintance with it usually is when he is found to have offended against one or more of its provisions. The inconvenience and even injustice of such a system hardly needs to be pointed out to chemists and druggists who are so exposed to be shot at under Orders made by the Ministry of Health, the Home Office, and other departments. Nor is this jungle of enactments, however bewildering, the most objectionable feature of the system from the point of view of the principle involved. A citizen may feel called upon to give obedience to a law by whatever means it may have been brought to his notice, but under all circumstances he is entitled to know that it is in fact law. And it is just here that the practice against which Lord Hewart inveighs, tries with an alarming measure of success to deny the subject access to courts of law whose constitutional function it is to say what is and what is not the law. His book abounds with instances of how this result is achieved. Thus an Act in giving a minister (by whom in practice we are to understand some official in the minister's department) power to make Orders may provide that such an Order when made is to have the same effect as if it were enacted in the Act itself—thus making it impossible to have the official dictum contained in the Order questioned in a court of law. A striking example of how the terms of an Act of Parliament may be thus used to defeat the subject's right of access to the courts is to be found in the Roads Act, 1920, in which, when power was given to the Minister of Transport to "suspend, modify, or determine liability," it was stated that an Order made by the Minister was to be final and not subject to appeal to any court. Few will be bold enough or incredulous enough to refuse to admit that an undesirable state of things exists which urgently calls for a remedy. Indeed, the steps taken by the Lord Chancellor in appointing, on the eve of publication of the book, a committee charged to "inquire into the powers exercised by or on behalf of Ministers of the Crown by way of delegated legislation and judicial or quasi-judicial decisions," was timely.

VALUELESS SPRAYS.—Writing to "Municipal Engineering" recently, Mr. Blacker Foster (F. C. Calvert & Co., Ltd., Manchester) expresses the view that the germicidal value of scented sprays in places of entertainment is negligible. The letter continues: "The only satisfactory method of preventive disinfection is to vaporise by heat a liquid of definite germicidal value under conditions which ensure not only a thorough diffusion of the gaseous vapour throughout the whole volume of the room, but also in sufficient concentration to have a definitely lethal action."

Pharmaceutical Society of Great Britain

Evening Meeting in London

THE evening meeting of the Pharmaceutical Society at 17 Bloomsbury Square, London, W.C.1, on January 14 was the occasion of the delivery of a Harrison memorial lecture and the presentation of a Harrison lectureship medal. The lecturer and medalist was Mr. P. A. W. Self, B.Sc., F.I.C., Ph.C., who was for some years in partnership with the late Colonel Harrison in analytical practice. The president (Mr. L. Moreton Parry) was in the chair, and with him at the table were the vice-president (Mr. A. R. Melhuish), Mr. Self, and the secretary (Mr. H. N. Linstead). The audience, which filled the lecture-theatre, included Mrs. E. F. Harrison, Mrs. Irvine, Mr. R. R. Bennett, Mr. C. G. Bonner, Mr. E. T. Brewis, Mr. F. Browne, Mr. F. H. Carr, Mr. C. E. Corfield, Mr. H. Deane, Mr. J. P. Ellerington, Mr. W. B. Falding, Mr. R. Fouracre, Dr. C. H. Hampshire, Dr. David Hooper, Mr. John Humphrey (chairman of the British Pharmaceutical Conference), Mr. John Keall, Mr. E. Saville Peck, Mr. Herbert Skinner, and Mr. G. A. Tocher. After a brief historical survey Mr. Self devoted the greater part of his lecture, which occupied just over half an hour in delivery, to a thoughtful discussion of the mental equipment and the organisation necessary for successful research. There was no discussion; after a vote of thanks had been moved by Mr. Bennett, seconded by Mr. Keall, and carried with acclamation, the president presented the medal, and Mr. Self made a brief acknowledgment.

The PRESIDENT, in opening the proceedings, remarked that Mr. Self was a West Countryman and had won the Pereira medal, a Burroughs scholarship and other distinctions at Bloomsbury Square; and now he was to receive the Harrison medal. Mr. Self became associated with the late Colonel Harrison in 1908, and joined him as partner in 1912; he had published many papers. The president called on Mr. Self to deliver the lecture entitled

The History and Development of Research

By P. A. W. SELF, B.Sc. (LOND.), F.I.C., PH.C.

[ABRIDGMENT]

WHEN we study the history of science from earliest times, we cannot fail to be impressed by the fact that it is not a record of slow and steady development, but on the contrary one of almost complete stagnation for ages, followed by extraordinary progress in quite recent times. Evidently no paper on scientific research can be complete without some consideration of this fact, and I shall therefore commence by attempting to give a very short sketch of some of the circumstances which first retarded the development of science and then caused it to proceed with ever accelerating rapidity. One of the greatest difficulties was undoubtedly that caused by the total absence of publicity, which in conjunction with the great difficulties of intercommunication not only rendered any extensive co-operation impossible, but also must have frequently caused the loss of important discoveries. If we imagine that today all existing printed scientific literature were suddenly destroyed and all future publication forbidden, while, at the same time, paper became scarce and extremely dear, we shall have some idea of the enormous handicap which must have been caused in this way in those remote times. A further and almost equally serious difficulty was caused by the undeveloped state of the arts and handicrafts, which, of course, rendered it impossible for the would-be experimenter to obtain any apparatus or instruments. Everything which he required had, therefore, to be made by himself, or adapted from the crude utensils in common use. This is probably an explanation of the fact that astronomy was one of the most highly developed of the sciences in ancient times, since it is the only one which depends solely upon accurate observation and not upon experiment. One other great obstacle to progress was that in most of the ancient civilisations almost all knowledge was in the hands of a priesthood, which, so far from desiring to communicate its discoveries to the outside world, treated them as jealously guarded secrets to be used for preserving and increasing its own power.

In spite of all these handicaps, better things might perhaps have been expected from two nations of the ancient world, Greece and Rome; from Greece owing to her high culture and the liberty enjoyed by her citizens, and from Rome owing to the practical qualities of her people and the long period of internal peace which attended her rule. In the case of Greece, indifference to science has been attributed to several causes, all of which may have contributed to some extent. In the first place, the Greeks were undoubtedly very narrow and exclusive, and appear to have considered it impossible to learn anything of value from any other race—a mental attitude which is obviously not desirable in any investigator. Further, books were rare and almost all education was oral, a method much more suited to the development of subtlety in argument and keenness in debate than to the training in close observation and accurate reasoning which is required for scientific investigation. Another cause which has been suggested is the well-known taste of the Greeks for metaphysics. I think that the Greeks did not, on the whole, possess some of those mental attributes which are indispensable for success in scientific research.

CAUSES OF ROME'S FAILURE

The causes of Rome's failure were perhaps simpler and more easily explicable. During the rise of her empire war and conquest must have absorbed almost the whole energies of her people, while later the task of governing the immense mass of subject races may reasonably be thought to have left but little opportunity for other activities. The verdict of history, also, is that the Romans were not naturally a cultured race, the culture which they acquired being borrowed almost wholly from the Greeks, whom they themselves acknowledged to be their superiors in nearly every department of knowledge except the arts of war and government. It could hardly be expected, therefore, that they would discern the importance of knowledge which their teachers had neglected, and that they did so in one science, that of engineering, is, of course, explained by its importance in both warfare and government. In the last stages of the empire, before its division, the despotic rule of the Caesars and the huge bureaucracy which accompanied it, together with the moral degradation caused by the existence of a vast slave population, appear to have produced a state of intense mental stagnation, in which all progress in knowledge became absolutely impossible.

THE MIDDLE AGES

On the fall of the Western Empire in the fifth century almost all Europe relapsed into a condition but little removed from barbarism, and, as might be expected, for the next six centuries the history of science in Christian countries is well-nigh a complete blank. During this period the survival of scientific knowledge was almost wholly due to the Saracens of Arabia, and the Moors and Jews of Spain, who, by borrowing from ancient sources and making new discoveries themselves, may be said to have founded the sciences of alchemy and astrology as practised in the Middle Ages. It must be remembered that during at least a part of this time the Moslem world was far more wealthy and more highly civilised than any of the European nations. When at length order was once more restored in Christendom by the establishment of the feudal system, the desire for knowledge once more arose, and during the eleventh century both astrology and alchemy commenced to spread from Arabia and Spain and to extend over the greater part of the western world. They continued to spread and develop during the next four centuries, but although many important discoveries were made during this time, even towards its close there were still no signs of the laying of any stable foundations upon which the future development of systematic science might be based. That this was the case was no doubt largely due to the fact that almost all the energies of alchemists and astrologers were devoted to the attainment of purely chimerical objects; but it must not be forgotten that other grave obstacles still existed, which would undoubtedly have been sufficient to cause progress to be very slow. Thus publicity was still nearly as undeveloped as in ancient times, while knowledge was again very largely in the hands of the priest. Further, the investigator now often experienced the active hostility of the Church.

Such was the position when, during the latter half of the fifteenth century and the beginning of the sixteenth, there happened in rapid succession four events of enormous importance, viz., the Renaissance; the invention of printing; the discovery of the New World; and the Reformation. The first of these not only revived the ancient culture, and once more deprived the priesthood of its monopoly of knowledge, but also, it is important to note, it affected very strongly those northern races which had remained almost completely outside the ancient civilisation. The invention of printing removed, slowly but surely, the lack of publicity to which I have already referred as forming one of the greatest obstacles to the development of knowledge. The discovery of the New World proved very forcibly that much still remained to be learnt and prepared men's minds for further discoveries, and last, but not least, the Reformation finally destroyed the mental slavery which had existed so long. After events of such importance it may at first sight appear somewhat strange that progress should have again halted, and that a period of nearly two and a half centuries elapsed before the final stage of development commenced. We must remember, however, that in any case such great changes could not be expected to develop their full effect immediately, and also that the forces of reaction did not yield at all readily.

MODERN ASPECTS OF RESEARCH

Passing from the history of the past to consideration of the present, I shall next deal very briefly with the training of the research worker and the qualities which he should possess. The preliminary education of the embryo scientist must, of course, be the same as that of any other well-educated student, since the choice of a calling cannot be made until the end of the ordinary school career. I should like to take this opportunity of saying, however, that while it is obviously desirable to include some science in elementary education, the amount of time devoted to it should not, in my opinion, be very large, and that it should not, on any account, be allowed to interfere with a sound general education in other subjects. Also, any science which is taught before matriculation should, I think, be almost exclusively directed to two objects—first, that of aiding the student to discover whether he possesses any ability for a scientific career, and, second, that of giving every young citizen, as far as possible, some idea of the enormous importance of science, of what it has done in the past, and of the methods which it employs, and by which it progresses. When the student has matriculated, and is undergoing his purely scientific training, the most important point, which has been often insisted upon in the past, but which I make no apology for mentioning again, is that he should carefully avoid specialising too early. In these days the boundaries of the so-called pure sciences are rapidly becoming less well defined, and are almost disappearing in places. No research worker in the higher branches of any one science can expect more than very moderate success, unless he possesses a sound knowledge of several others.

VALUE OF BUSINESS KNOWLEDGE

There is one other point in connection with the training of the scientist, which is not very often mentioned, but which is, I think, of considerable importance. I refer to the fact that scientific men as a class are often greatly handicapped by a serious lack of business knowledge. This not only tends to render them unbusiness-like in their own affairs, but also frequently makes it unnecessarily difficult for them to appreciate the point of view of the man of business. If it were possible, therefore, it would certainly be very desirable for all research workers, particularly those engaged in applied sciences, to have at least a short business training, sufficient to give them a reasonable knowledge of ordinary business routine, and also some insight into the motives by which the business man is actuated and the principles upon which all successful business is founded. I cannot think of any better example of the value of business experience when combined with scientific knowledge than that afforded by Harrison's work during the war. As everyone knows, his business training was unusually thorough,

and if it had been otherwise I am convinced that he would have been seriously handicapped in some phases of his work, and that the result could not possibly have been the success which it actually was.

THE IDEAL RESEARCH WORKER

While I would be the last to undervalue the very great importance of excellent training, there is obviously another side to the question, which is that no training can take the place of natural ability, although it may develop and strengthen it. I, therefore, propose to add a few remarks on the natural qualities which should be possessed by the ideal research worker, some of which, at any rate, are necessary for success. The first and most important of these is, of course, good judgment, and the next a vivid but well-controlled imagination. To these should be added great initiative, energy, and perseverance, some curiosity, and a good sense of proportion. The worker should be both a pessimist and an optimist, each in its right place. In addition to all these qualities, if he is in the position of directing other workers he must possess a character which will ensure him at least the respect, or, better still, the devotion, of all his subordinates; he must be a good organiser, and also possess a considerable knowledge of human nature and its defects. In short, the ideal research worker would be a modern Solomon, free, of course, from the numerous distractions from which Solomon suffered, and also from the pessimism which appears to have attacked him in his later years. It is hardly necessary to say that, owing to the inevitable imperfections of human nature, such a being as I have described, possessing all the above qualities to the highest degree, has never existed and never will exist. At the same time, if we study the lives of some of the great scientists, I think that we shall be surprised how often this ideal has very nearly been attained. One example, at least, will, I think, occur to all of us without my needing to name him.

ATTITUDE OF THE UNIVERSITIES

The two subjects which are of perennial interest when discussing the position of research in this country at the present day are the attitude and functions of the Universities and the methods whereby more use may be made of science in industry. It is generally admitted that before the war the attitude of the Universities towards research left a good deal to be desired. This attitude has no doubt changed considerably in recent years, especially in the case of certain of the Universities; but, on the whole, I think that there is still room for further improvement. In saying this I do not wish it to be thought that I undervalue research in the pure sciences in the least. Obviously, this must always be the foundation of scientific knowledge, and all I deplore is that it has not sometimes taken somewhat different directions. The chief functions of a University, in respect to research, are three in number, viz.: To conduct research, to train students in research methods, and to provide recognition of research work in the shape of post-graduate degrees. As regards the first function, it is evident that research in the pure sciences will always be left chiefly to the Universities, and it would appear unreasonable to expect them to conduct, in addition, much research in applied science, although they should, perhaps, take a benevolent interest in it. On the other hand, I think that even in pure sciences it should be remembered, more often than it is, that the true function of science is the service of humanity, and that discovery for the sake of discovery is sometimes little better than mere curiosity. In carrying out the second function, that of training students in research, the chief object should be to provide a thorough training in the methods and principles of research, and the production of results in the early stages of the training should be quite a secondary matter. The third function should include recognition not only of internal research, but also of really meritorious research in applied science performed externally after graduation.

APPLICATION OF SCIENCE TO INDUSTRY

The problem of increasing the application of science to industry, and incidentally of meeting foreign competition, is, of course, partly one of improving business organisation and partly one of increasing co-operation between the

business man and the scientist. It is well known that many of the problems of modern industrial research are so complex and difficult that they cannot be dealt with by individual workers, but only by groups of workers working together under the direction of a chief—the so-called "team-work." Such a method is, of course, costly and, therefore, usually beyond the resources of any but large firms. Further, in such circumstances, the speed of the work obviously depends very largely upon the number of workers, so that success is usually obtained first by the firm which spends most. In other words, given equal initiative, victory in industrial research, as in so many other matters, usually lies with the big battalions. The improvement of co-operation between business men and scientists is evidently very largely a question of rendering it easier for them to understand one another. It is obvious that the only way to attain this result is for the scientific man, on the one hand, to acquire a better knowledge of business, as I have already suggested, and for the business man, on the other hand, to become better acquainted with the methods of science. There appears to be no doubt that the captains of industry now appreciate, better than ever before, the value of science, this being partly due to the effect of the war, and the propaganda which has followed it, and partly to the activities of the Scientific and Industrial Research Department and of the research associations which have been instituted in various industries. But, while this is the case, there is still much to be done, and the thought strikes me that it might sometimes be better to explain the limitations of science more fully, as well as its advantages. It is, of course, impossible for us to appreciate at all adequately the ideas and feelings of the layman regarding science.

DEVELOPMENT OF PHARMACEUTICAL RESEARCH

Everyone knows that for some time past there have been many complaints that on the whole, in pharmacy and the allied sciences, less research is now published than was formerly the case. I therefore intend to devote a very short time to a discussion of this subject and to make a few suggestions regarding possible methods of improvement. In pharmacy, as in so many other sciences, potential research workers may be roughly divided into four classes:—(1) Those who actually publish research. (2) Those who are quite capable of publishing research, but who lack the opportunity. (3) Those who have the ability and the opportunity, but who, judging by their actions, have no desire to produce research. (4) Those who have the desire to do research, but who, from their lack of training, do not possess the necessary ability.

The only comment which I shall make on the first class is that its members are, unfortunately, not nearly as large in number as is desirable; but that, on the other hand, they would undoubtedly be far fewer if it were not for the activities of the Pharmaceutical Society. The second class is a large one, and there is no doubt that its existence is principally due to the stress of modern business and the fierce competition which is so characteristic a feature of the present time. It includes both those who are engaged in research, but who for business reasons are not at liberty to publish their results, and also those who are not now actively engaged in research, but who are in some other occupation which demands the whole of their time. It is to be feared that little or nothing can be done to induce members of this class to publish research. The case of potential workers of the third class is, perhaps, slightly more hopeful, the problem in this case being evidently that of finding some inducement in the first place, in the hope that once their interest is aroused it will continue to grow. The utilisation of the last class is obviously only a question of providing the training in research which is required; and this raises a point of very considerable importance. I refer to the position of many of the technical institutes engaged in teaching pharmaceutical subjects, which at present possess no facilities either for conducting research or for providing training in it. If this position were greatly improved, it is evident that recruits would be obtained in two ways, first by enabling many teachers to perform research, and, secondly, by rendering it possible to train considerable numbers of students who at present are unable to obtain the necessary facilities.

Apart from the above, I think that the Society might perhaps assist a little in the stimulation of research by improved organisation and direction of individual workers. For instance, the research list which was formerly published by the Conference might be revived and circulated more widely. As regards the general position, one might almost say that the time is now more favourable for the would-be investigator in pharmacy than ever before. A very large number of subjects for research will undoubtedly be provided in the near future by the revision of the Pharmacopœia and the Codex. The Society, by its own example, has aroused new interest in research, and has shown that it will appreciate the efforts of others. If the opportunities which are offered meet with no corresponding response, the only remedy is to encourage the right type of student and to make the facilities for training in research a more prominent feature of pharmaceutical education.

VOTE OF THANKS

The PRESIDENT emphasised the value of certain points in the lecture, remarking that only an expert could use simple language.

Mr. BENNETT, in proposing that a hearty vote of thanks be accorded to the lecturer for his most thoughtful and interesting address, pointed out that there were various aspects of research. Industrial research had developed enormously since the close of the war; there were now many research associations, some of them quite young. The chemical industry had developed very much during the last ten years, which was the greatest period of expansion in the history of the industry. The addition of the cost of research to the cost of manufacture had been resisted just a little by men of the old school; but captains of industry realised the true value of research. Successful research depended very much on the scientific enthusiasm of the worker himself; he should be inspired by a glorious obsession.

Mr. KEALL, in seconding the vote of thanks, commented on the most informative and illuminating way in which the lecture had been phrased.

The PRESIDENT presented the medal, remarking that he himself was an old friend of the late Colonel Harrison.

Mr. SELF, in acknowledgment, thanked the president for his kind words. The conferring of the medal was a great gratification to him, and he equally valued the honour of having his name associated with Colonel Harrison's once more. He quite understood the devotion to Colonel Harrison by his people in the Chemical Warfare Department.

New Books

The Foundations of the Theory of Dilute Solutions. 7½ in. by 4½ in. Pp. 67. 2s. 6d. Oliver & Boyd, Tweeddale Court, Edinburgh; Gurney & Jackson, 33 Paternoster Row, London, E.C.4. [No. 19 of the Alembic Club reprints, consisting of papers on osmotic pressure by J. H. Van't Hoff & S. Arrhenius, dating from 1885 and 1883 respectively.]

Rosenthaler, Dr. L.—*Grundzüge der chemischen Pflanzenuntersuchung.* 8½ in. by 5½ in. Pp. 160. Marks 9.—Verlag von Julius Springer, Berlin. [Compared with the second edition (reviewed in the *C. & D.*, 1923, II, 603), the third edition of this practical guide by the well-known professor in the University of Berne to the determination of chemical constituents of plants, exhibits a number of modifications consonant with the advances made during the past five years. The chapters dealing with resins and saponins have been entirely rewritten, and that on enzymes has been extended by the inclusion of descriptions of the methods employed for the recognition of various plant enzymes. Further, a brief historical sketch has been added in which the successive steps in the isolation and determination of the more important principal chemical constituents of plants are outlined. The various methods and processes involved in this branch of plant investigation are succinctly described, together with numerous biographical references, a point which enhances the usefulness of the work.]

Recent Food Investigations

A LECTURE ON, "Some Recent Food Investigations" was delivered by Mr. Stanley Dixon, M.Sc., F.I.C., at the Technical College, Cardiff, recently, under the auspices of the South Wales section of the Society of Chemical Industry. The lecture dealt particularly with the composition and nutritive value of foods. Until 1912, when Hopkins described his important feeding experiments, it was thought that all fats had the same value as foodstuffs. Although vitamins have not been isolated, they are doubtless chemical substances. The following table summarises their distribution in nature and their main effects:—

Vitamin	Distribution	Properties
A ..	Livers of herbivorous animals and of fish, milk, butter, cream, green vegetables. Absent from vegetable oils	Growth-promoting, anti-infective, prevents xerophthalmia
B ₁ and B ₂	Seed germs, yeast, egg-yolk, nuts, green vegetables	Anti-neuritic, growth-promoting, prevents pellagra
C ..	Fresh fruits and vegetables..	Prevents scurvy
D ..	<i>Vide A..</i>	Prevents rickets
E ..	Wheat germ oil and certain green vegetables—e.g., lettuce, peas	Prevents sterility

Vitamin A has long been known to be present in many animal fats, e.g., milk, butter, beef and mutton fat, green vegetables and cod-liver oil. Watercress is remarkably rich in vitamin A. In 1927 Rosenheim found that certain fish-liver oils have a vitamin A content far exceeding that of cod-liver oil; for example, the liver oils of salmon and halibut are often 100 times as rich in this vitamin as that of the cod. Far more important, however, from the industrial standpoint is the discovery that the liver oils of herbivorous animals, such as the sheep, calf and ox, usually contain about ten times the concentration of this vitamin found in cod-liver oil. Drummond's discovery that the unsaponifiable matter contains the whole of the vitamin activity of the oil provides a means of obtaining this substance in high concentration. Professor Mellanby was the first to prove that the absence of an anti-rachitic vitamin in the diet was the central factor in the production of rickets. In 1926 Rosenheim, in an examination of substances related to cholesterol, discovered that ergosterol could be activated, yielding a highly potent anti-rachitic substance.

Summer and winter milk differ appreciably in vitamin content, the former being the richer owing to the fact that in the summer months cows are out at grass. Summer milk has also a greater anti-scorbutic power than winter milk. The addition of cod-liver oil to the diet of a cow results in changes in the chemical composition of the milk, particularly an increase in the total calcium. Dried milk approximates more closely to fresh cow's milk than the evaporated variety, and is superior to condensed milk as regards vitamin-B content. Dried milk prepared by the drum process retains its anti-scorbutic power, but when made by the spray process it has been found to be deficient in this factor. Margarine containing vitamins is already marketed, and in the near future all margarine will be enriched with vitamins. That wholemeal bread will contain more vitamin B than white bread is obvious, since in the milling of wheat the embryo, which is rich in these factors, is removed. Flour, however, should not be "improved" by the addition of persulphates, nor bleached with chemicals which serve to lessen the amount of active vitamin. Weight for weight, white flour is a better source of energy than wholemeal flour. In the latter some of the starch is replaced by cell-membranes, inorganic salts, soluble pentosans and proteins derived from the bran. It is evident that the problems of nutrition are far more complicated than was formerly imagined. Something more than sufficient quantities of fat, proteins, carbohydrates and mineral matter is required.

Research in Carbohydrates

THE Medical Research Council has issued a report (Special Series, No. 135, Stationery Office, 2s.), by Drs. R. A. McCance and R. D. Lawrence, on the carbohydrate contents of foods. The report forms an admirable summary of the present state of research in this subject, and embodies a considerable amount of original work. Each vegetable and fruit examined by the authors has been determined six times, by means of analytical methods described in the pamphlet. A table occupying ten pages gives particulars of sugars found in fruits, nuts and vegetables. The authors have summarised their evidence in a concise form. It appears that pentosan and total sugar content are entirely independent; that appearance and taste are little guide as to content of sugar; and that on averaging the estimations of total carbohydrates in fruits, one hour's hydrolysis was found to give figures higher by 5.5 per cent. over two hours' hydrolysis, whereas in nuts two hours' hydrolysis gave results higher by 2.5 per cent. The estimation of furfural has been carried out by a colorimetric method devised by Dr. McCance. The method is very rapid but, like older ones, conventional. Judged by acid hydrolysis, the majority of the pentosans are much less resistant than cellulose; but judged by the extent to which they are digested, this difference is not always evident. Individual pentosans may be completely digested to an extent unknown with cellulose. They may act as a source of energy in much the same way as cellulose, but their value may sometimes be higher as their solubility renders them more easily attacked by bacteria. A section of the report is devoted to discussion of the familiar topic of the relative dietetic values of white bread and whole-meal bread. The authors have no doubt that white flour is a better source of energy than whole-meal, and give their reasons. They sum up their views in the following paragraph:—

In advocating whole-meal bread for general use, whether in times of need or in times of plenty, it should be remembered that not only men, but also women and children are concerned, and that all the experiments on which the arguments are based have been carried out on animals or adult males. Children are very intolerant of high cellulose diets, and, for some, brown bread is far too irritating, even if given with the idea of relieving constipation. Appetite is such an important factor in all digestive considerations that no one who dislikes a food of unproved value should be forced to eat it if it can be avoided. In time of peace, of course, the grown-up population, if they have the choice, will never eat whole-meal bread unless they like it, no matter how specious the advertisement, but they may force their children to eat it in the belief that they are doing them good. One should, therefore, be cautious in advising whole-meal bread generally, and wait until careful unbiased experiments have been done on a sufficient number of men, women and children.

After a careful discussion of the part played in nutrition by fibre, hemicellulose, inulin, galactans and other classes of food material, the authors conclude that starch is the only polysaccharide available as carbohydrate for human metabolism. All vegetables contain other polysaccharides, which are not attacked by enzymes but are broken down extensively, though usually incompletely, by symbiotic micro-organisms. Cellulose and pentosans supply only small fractions of our total energy requirements. An excellent bibliography comprising 340 references concludes the report.

THE Derby Education Committee has instituted classes for shop assistants. Among the subjects taught are salesmanship, advertising and window dressing.

FEDERATED MALAY STATES IMPORTS OF ACETIC ACID.—From a 1928 official F.M.S. report it appears that imports of acetic acid from Italy totalled \$106,185, from Holland \$57,841, from Germany \$16,812, from United Kingdom \$3,047.

AUTOMATIC SALES.—Discussing the increasing sales from "automatic venders," the "Yorkshire Post" of January 13 remarks:—"It is indeed an anomaly that adults in the non-prohibition parts of Canada cannot obtain brandy from a chemist without a prescription while English children can acquire aspirin from a slot machine."

Some Noteworthy Indian Drugs

WITHIN the past half a dozen years some Indian drugs have assumed an importance, especially from the point of view of foreign trade, which they did not possess before. The commercial exploitation of these drugs has not as yet reached very far, but it would appear that there is a distinct future before them.

EPHEDRA

Among such drugs of recent interest ephedra takes the first place. Although ephedrine was isolated some thirty years ago by the Japanese chemist, Nagai, ephedra is by no means a new drug. It was known in China 5,000 years ago. *Ephedra vulgaris*, called Huma, is still used by the Parsis in religious ceremonies, and is brought from Persia—their ancient home. If the supposition of certain orientalists that Huma is the same as the Soma of the Vedas be correct, then it will not be wrong to assume that one or other species of *Ephedra* was the material which yielded the holy Soma drink of the ancient Aryans, and that such use of the plant was common considerably before 3000 B.C. In modern times two species of ephedra, viz., *E. pachyclada* Boiss and *E. vulgaris* Rich, have been described in the flora of British India, the distribution of the former extending from the Western Himalayas to Eastern Persia, and of the latter from the temperate and Alpine Himalaya, through Western and Central Asia to Japan. Some of the specimens in Hooker and Thompson's collection of Indian ephedras at Kew were formerly supposed to be a variety of *E. vulgaris*, called *Helvetica*; but the identification has since been found to be erroneous, and these have been renamed *E. intermedia* Schrenk and C. A. Meyer Var. *Tibetica*. The European species is *E. Helvetica*, which contains pseudo-ephedrine only, and the Chinese plant has been provisionally named *E. Sinica*. As regards the two Indian species mentioned above, there is very little difference between them botanically, but according to the report of the Calcutta School of Tropical Medicine the species differ in their total alkaloidal contents as follows:—

	Whole plant	Green twigs
<i>Ephedra vulgaris</i> ...	0.92 ...	1.49
<i>Ephedra pachyclada</i> ...	1.16 ...	1.81

The percentage of ephedrine is also high enough to warrant extraction of the active principle on a commercial scale. Ephedra covers large tracts in several parts of the Himalaya, and provided collection is made in the right season and the drug marketed with care, India may look forward to a voluminous trade in ephedra or ephedrine in spite of China being a close competitor.

SANTONIN

It was towards the end of the late war that attention was first directed to the possibility of getting santonin from the Indian *Artemisias*. Several species of *Artemisia* grow over extensive areas from the foot of the Himalaya to an elevation of 12,000 ft. But only *A. Maritima* Linn, and *A. brevifolia* Wall, growing on the higher slopes at certain localities, have been found to contain santonin in an appreciable amount. Santonin was first detected in Kashmir *artemisia* in 1919, and Professor Greenish found santonin in the leaves besides the flower buds. Since that time samples from a few Himalayan districts and Baluchistan have been examined by various private workers and official institutions, including the Imperial Institute of London. The proportion of santonin has varied according to the nature of the material and the season of collection, from a trace to 1.95 per cent. This is below the Russian yield of 2 per cent. For commercial purposes it may be roughly calculated that 0.60 per cent. santonin is recoverable from the Indian raw material against the commercial yield of 1.8 per cent. of the Russian plant. But the Indian stuff is abundant and cheap on the spot. Tschirch says that *A. Cina*, the source of Russian santonin, is in danger of disappearing in Turkestan owing to destructive exploitation, steppes fires, frequent drought and many *artemisia* areas being devoted to cattle-breeding. In that case, or even independent of such circum-

stances, Indian santonin-yielding *Artemisias* are bound to figure largely in the santonin-production of the world. For the present, operations have commenced in the Kashmir State, and before long Kashmir santonin will prove a rival of the Russian product. The Baluchistan area, which is more accessible, is, however, still lying untapped. Perhaps the prospective manufacturers of santonin are awaiting the results of working of the Kashmir factory.

DIGITALIS

Formerly all the digitalis leaves that India required were imported from abroad, but the foreign supply was intercepted during the late war, and digitalis began to be cultivated by the Government and private parties. *D. purpurea* Linn. is not a native of India, but it has been naturalised in several places, notably in the Nilgiris, Darjeeling and Kashmir. Tincture is being manufactured from leaves growing in these localities, but it appears that while the tincture prepared from the Darjeeling and Kashmir leaves is quite efficient therapeutically, the tincture of the Nilgiri leaves is not only 15 to 20 per cent. weaker than the B.P. tincture, but more toxic. The reason of variation in the leaves grown in South India has not been as yet found out. But even leaving the South Indian digitalis out of consideration, enough of this drug is now produced in India to meet the requirements of the country.

HINDU MATERIA MEDICA

The bark of *Holarrhena antidysenterica* Wall, is one of the oldest medicines of the Hindu materia medica; it was no less prized by the foreigners who came successively into India, and who called it conessi or Telli-cherry bark. Unfortunately it fell into disrepute owing to gross adulteration. Clinical tests with the pure bark have, of late, completely restored the drug to its old position. It has been found that the active principle of the conessi bark is conessine. Other alkaloids are also present in the drug, and the proportion of conessine is only about 0.2 per cent. of the total alkaloids. Like emetine, conessine kills *E. histolytica* *in vitro*, but its action is more powerful, as will appear from the following:—

	Dilution.	Time required for killing. with alkali — without alkali
Emetine ...	1: 200000	8 minutes — no action.
Conessine ...	1: 280000	8 minutes — 18 minutes.

Salts of conessine like hydrochloride, hydrobromide, tartarate, etc., have been prepared, and are being extensively tried. Considering the high price of emetine and the difficulties of ipecacuanha cultivation, it would indeed be a boon not to India alone, but to many a country where amoebic dysentery is prevalent, if emetine could be effectively substituted by conessine, the raw material for the manufacture of which can never be exhausted.

Saussurea Lappa C.B. Clarke has a very interesting history. Highly esteemed by the ancient Hindus as a drug and incense, Kustha has been mentioned in the oldest Sanskrit works on medicine. From its home in Kashmir this root has been carried far into the East and West from very early ages, although it was wrongly known for some centuries as Arabian costus. It is a valuable monopoly of the Kashmir State, and is now principally exported to China where it is said to be used for the purposes of incense, perfumery and flavouring drinks. Recent chemical analysis of the drug has disclosed the following important constituents:—(1) essential oil about 1.5 per cent.; (2) alkaloid, about 0.05 per cent. besides a bitter substance of glucoside nature, resin, inulin, tannins, fixed oils, etc. The alkaloid which has been named saussurine has proved a valuable remedy for the vagotonic form of asthma—a form that is common in India. The essential oil has marked antiseptic and disinfectant properties especially against streptococcus and staphylococcus. Already preparations of the drug by local manufacturers are in the market, and it is hoped that the use of costus root as a medicine will rapidly increase. It must, however, be noted that costus is a very costly article, and is, in consequence, liable to considerable adulteration. The manufacturers will have to guard themselves against extraneous matter, some of which is introduced into the drug at the fountain-head of collection.—N. B. DUTT.

Festivities

Staff Dinner and Dance

THE Clarendon Restaurant, Hammersmith, London, W., was the venue on January 2 of the staff dinner and dance of the Parfumeries de Paris, Ltd. The entire staff was present, and just under 100 sat down to an excellent dinner. After the loyal toast, the chairman (Mr. R. Borel) proposed the toast of "The House of Houbigant (and its little cousin, Cheramy)," and his interesting remarks were received with great applause. Proceedings at the festive board lasted for nearly two hours, after which the company danced in an atmosphere perfumed with "Quelques Fleurs."

Brighton Gathering

BRIGHTON and Hove Association of Pharmacy held their annual dinner and dance at the Grand Hotel, on January 9. The attendance was 160. The president of the Association, Mr. A. J. Franklin, was in the chair, and his immediate supporters were Mrs. Franklin, Mr. L. Moreton Parry, Mr. H. C. Browne (president of the Eastbourne Association of Pharmacy), Mr. F. W. Burgess and Mrs. Burgess. Mr. Burgess proposed the toast of "The Pharmaceutical Society," to which Mr. L. Moreton Parry responded. "The Ladies and Visitors" was proposed in apt terms by Mr. Edgar Jones. Mr. H. C. Browne proposed "The Brighton and Hove Association of Pharmacy." He congratulated the Association on a very successful year. Responding, Mr. Franklin said the gathering was the largest they had had in the history of the Association, which was a very great gratification to himself and his committee. He welcomed the presence of the contingent from Eastbourne, and spoke of the cordial relations existing between the two Associations. With gratification he noted improved support to the Benevolent Fund, and looked forward to a still greater effort on its behalf this year. He concluded by presenting Mr. J. A. Dyson, on behalf of the Association, with a silver cake basket in recognition of his four years' secretaryship.

With the Women Pharmacists

It may have been the inclement weather (for January 9 was tempestuous) which induced a trace of anxiety on the usually cheerful countenance of Miss Hodgkinson in the early part of the evening. For it was the night of the New Year dance of the Association, of which she is the efficient secretary, and although women pharmacists are undaunted by weather, one never knows about the men. But her fears (if any) were unjustified, for by nine o'clock the beautiful Suffolk Street Galleries were filled to overflowing with a gathering thoroughly representative of London pharmacy. The social functions of the women pharmacists have such a reputation for "go" and cheeriness that one cannot afford to miss them, so up rolled not only the *habitués*, but likewise many new-comers, and these vowed before the evening was far spent that they would come again. Prominent members of the Association, such as past-presidents like Mrs. Irvine (chaperoned by Dr. Jean Reoch and Miss May Reoch), Miss Dennis Hayes (who treats chaperonage with despatch), Miss Agnes T. Borrowman (a Pharmaceutical Society examiner) and many others were there to support this year's president (Miss Sproule) and the secretary, Mrs. Freke, a past-president, was absent through illness, but her daughter (Mrs. H. N. Linstead) effectively deputised. Three past-presidents of the Western Pharmacists' Association were present, each in charge of a daughter. These were Mr. A. R. Melhuish (vice-president of the Pharmaceutical Society), Mr. C. A. Noble and Mr. C. G. Bonner. Another past-president, Mr. W. B. Falding, was likewise there with Miss Falding, and others in the company of about 150 were Mr. Herbert Skinner (past-president of the Pharmaceutical Society), Mr. B. R. Wilkinson, Mr. W. A. Abbott, Mr. and Mrs. William Chalmers, Mr. J. E. Jones (South-West London Chemists' Association), Dr. Walter Kennedy and Mr. H. N. Linstead, secretary of the Pharmaceutical Society. As master of ceremonies, Mr. Peter Irvine superintended everything with his customary efficiency.

Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts

Local Reports

ENGLAND AND WALES

Derby.—The Derby Insurance Committee recently accepted, with a warning that greater care must be exercised, a panel chemist's explanation of a discrepancy in a test prescription. He suggested that this was due to two ingredients, liquor strychnine and liquor ferri perchloridi, being over strength. The liq. strychn. was carefully measured and checked, and his analyst found thirty-eight minims as against the official analysis of forty-four minims. The liq. ferri. perchlor. turned out to be a little too strong, but the excess was not very marked. He very much regretted the inaccuracy.

St. Helens.—The annual report of the Borough Insurance Committee states that there are twenty chemists on the panel with twenty-three pharmacies. The total number of prescriptions for 1928 was 159,304, and the amount paid under the new financial arrangements, including a bonus of 4.15 per cent. of the amount of dispensing fees, was £5,782 against 155,176 prescriptions and £5,169 in 1927. Of the seventeen chemists actually having places of business in St. Helens, ten received less than £300, two between £300 and £500, three between £500 and £700, one between £700 and £900, and one received over £900. The average payment to these seventeen chemists was £339, as against £363 for fourteen chemists in the previous year. The average cost per prescription was 8.53d., or 23 per cent. less than for the whole area.

West Ham.—At a meeting of the West Ham Insurance Committee, held on January 6, the question of the conveniences afforded to panel patients by chemists was discussed. Councillor Groves, M.P., stated that during the winter, and when there was an epidemic, more services should be provided by the chemists for their customers. Sometimes one had to stand in the street waiting. Mr. Potter said that he had heard of no complaint of anyone having to wait in the street. Mr. Harding said that often a panel patient had to call back in order to get his medicine. Councillor Rumsey said he had had to make a complaint about a queue outside a chemist's shop in the snow. It would meet the case if a chemist took the prescriptions and employed a lad to distribute the medicine. The chairman said he thought they should have an actual case. It appeared to him that there were some medicines that it took a considerable time to dispense, and a private patient also would have to wait or call back. Mr. Potter: In my father's time it was the custom never to dispense a prescription when it was presented. It was always a case of waiting. But conditions have altered a great deal since then. At the request of the chairman, Councillor Groves agreed to bring it to the notice of the Committee if he received a definite case for complaint.

SCOTLAND

Dundee.—At a recent meeting of Dundee Insurance Committee the Medical Benefit Subcommittee dealt with complaints that insured persons had been asked to take prescription-forms to chemists named by practitioners. A draft letter was approved reminding practitioners that insured persons had the same free choice of a panel chemist as they had of a panel doctor. The clerk was instructed to inform panel chemists that they should see defects in prescription-forms rectified before the forms were sent in for pricing. During the past year the amounts paid out included £8,397 to chemists.

Stirling.—The question of over-prescribing was raised at a recent meeting of the County Insurance Committee. It was pointed out that this question depended to a great extent on the amount of illness, and that the prescribing for January and February of 1929 was heavy in consequence of the epidemic prevailing then.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, January 16

BUSINESS in Mincing Lane produce has not been very active, there still being a cautious feeling in most sections. Sugar does not inspire much confidence, and there has been increased competition in home-made granulated as indicated by another price reduction, but terminal dealings in raw sugar were more brisk at the lower levels. Rubber rallied about ½d per lb. from the worst touched last week, when the lowest figure was recorded since 1922, but stocks further increased considerably. Shellac is uncertain with daily fluctuations. There has been rather more confidence in Stock Exchange circles since the beginning of the year, which has been assisted by the improved monetary situation reflected in industrial securities. The financial situation is, however, slightly confusing at the moment on account of a renewed break in sterling-dollar and French rates of exchange, which is interfering with the influx of gold. The most striking feature in British export trade last month was the further heavy increase in coal, which makes a spectacular showing for the year in contrast to the poor returns of Lancashire goods. Business in pharmaceutical chemicals has continued on a limited scale since the opening of the new year, and there are no important changes in value. Hexamine and potassium bromide show an easier tendency in one or two quarters, owing to price cutting, but the quantities offering are not important. Milk-sugar is cheaper. In crude drugs, buyers' attention has been concentrated on the first auction of the year. Privately Sudan acacia gums have again sharply advanced on the spot and for shipment, owing to the small arrivals in primary markets and "bear" covering. Lobelia and damiana are firmer to arrive and senega is cheaper. In the industrial chemicals market business is of limited volume, and there are no important price changes. Acetate products remain firm, with a good demand for acetone and acetic acid. Zinc oxide has become more competitive with new makers on the market. Coal tar products are all unchanged. Among the so-called vegetable oils quiet markets are reported, the slight fluctuations favouring buyers. Linseed oil and turpentine are easier: Hankow wood is again cheaper. Acid oils are firm and rape has declined slightly. Lubricating oils are unsteady.

Higher	Firmer	Easier	Lower
Gum acacia (Kordofan)	Damiana leaves Lobelia herb Wax, carnauba	Citronella oil Clove oil Hexamine Ipecacuanha Linsed oil Potash bromide Rape oil Shellac (spot) Turpentine	Cardamom Seed Kola Lemon oil Milk-sugar Pimento Rubber Sarsaparilla (Grey Jam.) Senega Wood oil (Hankow)

Crude Drugs

ANTIMONY.—Somewhat more inquiry is reported for spot parcels, quotations for which range from £31 to £31 5s. Terms for shipment range upward of £27. English high-grade is £52 to £52 10s., but good brands are obtainable from about £49 down to £45. Chinese crude on the spot is nominally £26 per ton, and Chinese white oxide is about £34 10s.

CADMIUM is unchanged. Current supplies are well absorbed although coming in on a liberal scale, and terms stand at 3s. 11d. to 4s. per lb. for fair-sized spot lots. Contracts for parcels to arrive, however, can be fixed at certain concessions.

COCOA BUTTER.—The London spot price of prime English is 1s. 2½d., C.F.R. 1s. 2½d., and Van Houten's A 1s. 3d. per lb. in not less than one-ton lots.

COD LIVER OIL remains unchanged, and most of the consumers are holding off pending the offering of new crop. Certain speculative offers for February-March shipment have been made for 1930 Norwegian medicinal oil at about 105s. per barrel c.i.f. No reports are yet available

in regard to the new fishing, which should open at about the end of this month.

CLOVES.—Zanzibar are steady, with spot sales at from 9½d. to 10d. per lb. To arrive, sales of December-February shipment have been made at 9d., February at 8½d., and March shipment at 8½d. per lb. c.i.f.

The landings of Zanzibar in London during the week ending January 11 were 240 bales and the deliveries 79, leaving a stock of 1,374 against 2,427 in 1929 and 11,646 in 1928.

CORN PRODUCTS, ETC.—Guaranteed water-white English glucose (corn syrup) is 22s. per cwt. for January-March delivery; American is 22s. ex store, London. Dutch maize starch powder (cornflour) is 15s. 6d. per cwt. on the spot; American for January delivery is 15s. 3d. per cwt. ex store, London. Pearl starch for January delivery is 14s. 9d. per cwt. ex store, London; February-June is 15s. 9d. Dutch maize starch crystals is 21s. on the spot, and American up to the end of March is 16s. per cwt. ex store, London. Dutch dextrin is quoted at 21s. to 25s. 6d. per cwt. on the spot as to quality. American canary for January-June delivery is 19s. 4½d., and white 19s. 1½d. ex store, London. Dutch farina is 12s. 6d. per cwt. on the spot, and to arrive 10s. per cwt. f.o.b. is quoted for January to June delivery.

DAMIANA LEAVES are firmer at 10d. per lb. c.i.f.

GUM ACACIA.—Kordofan is again much higher, with sales of January-February shipment up to 95s. per cwt. c.i.f. and March-April shipment up to 92s. 6d. c.i.f. Spot is now 102s. 6d. per cwt., and some ask 105s. Talha has been sold up to 40s. c.i.f., with rather buyers over. Spot is 55s. Bleached Kordofan is firm and unchanged at from 150s. to 150s. per cwt., according to grade. We deal with the position in an editorial article on page 71, and may add that the position has become difficult, inasmuch as there are only about 20 tons arriving daily in the primary markets when there should be, say, a hundred tons. It is supposed that the trees have been damaged by the first frosts and have not recovered from last year's treatment. So far this year arrivals are only 30 per cent. in the Kordofan market, and considering the crop last year was 13,000 only (against 20,000 tons in 1928), the shortage is now 7,000 tons, with no "carry over."

LOBELIA HERB is firmer at 6d. to 6½d. per lb. c.i.f. in ton lots.

MAGNESIUM.—There is a regular business doing by British makers, whose terms are steadily held. These range from 3s. 3d. up to 3s. 9d. for small ingots and sticks, while ribbon is 11s. to 14s., wire 7s. 6d. to 12s. 6d., and powder 4s. 6d. to 7s. 6d. per lb. according to specification.

MENTHOL continues extremely quiet at from 15s. 3d. to 15s. 6d. per lb. for Kobayashi-Suzuki on the spot; to arrive, from 14s. to 14s. 3d. c.i.f. is quoted.

MERCURY.—The undertone has been somewhat firmer and quotations in the open market range from £23 to £23 5s. per bottle for small lots, less the usual discount. There is a rather better demand from home consumers, who are none too well provided, and the terms of the combine are well maintained on the basis of £22 7s. 6d. per bottle for lots of not less than ten bottles net terms, and the f.o.b. quotation for forward shipment of upward of 50 bottles stands at £21 15s. per bottle net. Only limited quantities are available on the spot.

OPIMUM.—According to figures published by the Direction-General of Statistics, Sofia, exports of opium from Bulgaria during September 1929 amounted to 1,578 kilos (Germany 1,278 kilos, France 300 kilos). The total exports during the period January-September 1929 were 4,735 kilos, valued at 10,385,802 leva.

PEPPER has fluctuated within narrow limits. Fair Singapore is 1s. spot; to arrive, January-March shipment is 10½d. c.i.f. Lampong is 1s. spot. Sales for shipment include January-March at 11½d. to 10½d. c.i.f., and March-May at 10½d. to 11d. c.i.f. Tellicherry is 1s. 1½d. spot; January-March 110s., and February-April 108s. c.i.f. Alleppy is 1s. 1d. spot, and February-April shipment is 105s. c.i.f. White Muntok is 1s. 5d. spot. Sales for shipment include January-March at 1s. 3½d. to 1s. 4½d. to 1s. 3½d.; March-May at 1s. 4½d. to 1s. 3½d. c.i.f.

PIMENTO is easier at 9½d. per lb. on the spot, and for February-March shipment sellers quote 86s. per cwt. c.i.f.

RUBBER has again declined, and prices are about ½d. per lb. lower. At one time spot was done down to 7d. per lb., whilst at the close it was slightly better at 7½d. Business, however, remains extremely quiet, and it is somewhat remarkable that in spite of the very low price, there is very little buying by consumers. The arrivals this week were again exceptionally heavy, and totalled 3,439 tons, whilst deliveries were 1,055 tons, showing a further increase of 2,374 tons in the stocks. The London stock now stands at 58,990 tons, against 23,016 tons at the corresponding period last year. The Liverpool stock now stands at 19,640 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard

ribbed smoked sheet, spot and January, 7½d.; February-March, 7½d.; April-June, 7 9-16d.; July-September, 7½d.; October-December, 8½d. per lb.

SAFFRON.—There is no change in the price quoted on the London market, as, although the price has advanced at the source, the Spanish exchange has moved in favour of the £1 sterling, and so kept the quotations at the same level.

SEEDS.—**ANISE.**—Spanish is 65s. and Russian 32s. per cwt. on the spot. **CANARY.**—Market is quiet; Mazagan on the spot is 23s. 6d., and for January-February shipment 26s. 6d. c.i.f. is quoted. Morocco (f.a.q. 4 per cent.) is 26s. 6d. spot, and for prompt shipment 25s. c.i.f. is wanted. **CUMIN.**—Malta on the spot is 70s., and forward 65s. c.i.f. Morocco remains firm at 57s. c.i.f. and 65s. spot. **FENUGREEK.**—Morocco on the spot is 19s. 6d., and for shipment 16s. 6d. c.i.f. is quoted. Tunisian is now firm at 18s. 6d. spot, with business done. **CORIANDER** is unchanged at 8s. 3d. c.i.f. for January-February shipment, which has been paid, and spot is 8s. 6d. per cwt. **FENNEL** remains at 57s. 6d. spot and forward shipment. **MUSTARD.**—English is 27s. 6d. to 31s. per cwt., according to quality. **CARAWAY.**—Dutch on the spot is 38s. per cwt., and for prompt shipment 36s. c.i.f. has been paid.

SHELLAC.—Spot opened easier but closed firmer, the spot price of usual standard TN orange being 150s. per cwt., fine orange is 180s. to 270s., pure button 195s., and AC cakey 185s. Sales of TN to arrive included December-January shipment at 134s. c.i.f., and January-February shipment at 132s. 6d. to 136s. c.i.f. For delivery, TN March has been sold at 135s. to 142s., May at 138s. to 145s. to 141s. to 145s. 6d.

VANILLA.—At auction on Wednesday, 52 tins Ceylon offered, and 11 tins sold, comprising foxy and split at 2s. 9d. to 3s. per lb. Firsts were bought in at from 5s. to 6s. 3d.

WAX (VEGETABLE).—Japanese is quiet at 80s. per cwt. on the spot, and for shipment 69s. c.i.f. is quoted. Carnauba is steadier at 112s. 6d. spot for fatty grey; afloat at 108s., and January shipment at 102s. c.i.f. Chalky is 112s. spot, and January shipment 98s. c.i.f. Primavera is 160s. spot and 142s. 6d. c.i.f. Mediana is 150s. spot, and 137s. 6d. c.i.f.

Essential Oils

THERE is only a poor demand generally and the majority of prices are unchanged. Sicilian oils are very weak. Jamaica sweet orange is firm. American oils are fairly steady.

The following are the quantities and values of natural essential oils (other than turpentine) imported into and re-exported from Great Britain during December 1929, compared with the same months in 1927 and 1928, also for the twelve months in the respective years:—

	1927	1928	1929
December imports ..	.. lb. 406,853	389,972	329,995
value	£26,339	£107,584	£81,836
Jan.-Dec. imports ..	.. lb. 3,997,635	4,375,389	3,933,853
value	£1,101,351	£1,198,375	£1,353,580
December re-exports ..	.. lb. 127,315	69,148	49,220
value	£27,754	£27,169	£21,576
Jan.-Dec. re-exports ..	.. lb. 850,569	780,108	828,007
value	£306,212	£305,195	£361,015

ANISE (STAR).—On the spot leads are quoted at from 3s. 10½d. to 4s. per lb. and tins at 3s. 10d. to 3s. 11d. Drums are unobtainable on the spot and are not offered for forward shipment. Tins and cases are not offered. Leads are nominal at 3s. 3d. per lb. c.i.f. to arrive, but take three months to ship, so that there are no buyers.

BERGAMOT is quoted for 38-40 per cent. l.a. at 10s. 9d. per lb. c.i.f. London.

CARAWAY.—Double distilled foreign is 7s. 3d. per lb. spot. **CASSIA** is steady at 4s. 3d. per lb. on the spot, and to arrive 3s. 9d. c.i.f. is quoted.

CEDARWOOD.—No business has been passing and the price is still 1s. 3½d. in drums, spot.

CITRONELLA.—Ceylon is quoted at about 2s. 3d. per lb. on the spot, and to come forward at 2s. 1½d. per lb. c.i.f. Java is slightly easier, with spot sellers at from 2s. 7½d. to 2s. 8d. per lb.

CLOVE.—English distilled is easier at 6s. 8d. per lb. spot. **LEMON** shows a downward tendency, and pure natural hand-pressed is quoted at 6s. 6d. per lb. c.i.f. London. Pure natural machine-made oil is quoted at 5s. per lb. c.i.f. London.

ORANGE.—Jamaica sweet orange remains very firm at 9s. 6d. per lb. c.i.f. Sicilian sweet orange is quoted at 9s. 9d. per lb. c.i.f.

PEPPERMINT.—Owing to former sellers covering in Japan, c.i.f. prices are steady to slightly dearer at from 4s. 8d. to 4s. 9d. per lb. c.i.f. for Kobayashi-Suzuki. Spot is inactive at 5s. to 5s. 2d. per lb. Italo-Mitcham is about 15s. per lb. spot and rectified at 16s. per lb. Rectified Japanese dementholised oil is 6s. 9d. to 7s. per lb. American natural

tin oil is firm at from 13s. 6d. per lb. c.i.f., the spot value being about 14s. 3d. per lb. H.G.H. is quoted at 12s. 6d. per lb. on the spot and 18s. c.i.f. to arrive.

SASSAFRAS is quoted at 5s. 3d. per lb. c.i.f. and at about 5s. 6d. per lb. on the spot.

WORMSEED (CHENOPodium) is firm at 15s. 6d. per lb. c.i.f., and at about 14s. 9d. per lb. spot.

The following arrivals have taken place from the countries indicated during the period January 8 to January 14 (inclusive): Bergamot (It.) 4 cs.; cananga (Java) 1 dm.; cedarwood (U.S.) 6 dm.; (Kenya) 8 dm.; cinnamon (Cey.) 3 dm.; clove (Ger.) 4 cs., (Fr.) 15 dm., (Mad.) 4 dm.; eucalyptus (Aust.) 6 dm. 20 cs., (Sp.) 10 dm.; gingergrass (Br. Ind.) 2 cs.; lavender (Sp.) 9 dm.; lemon (It.) 1 cs.; lime (B.W.I.) 1 dm.; orange (U.S.) 10 cs., (Sp.) 1 cs., (It.) 40 cs.; patchouli (Sey.) 1 dm., (Str.) 4 cs.; peppermint (U.S.) 22 cs., (It.) 4 cs., (Jap.) 40 cs.; sandalwood (Br. Ind.) 27 cs.; sassafras (U.S.) 6 cs.; undescribed (U.S.) 3 cs., (Fr.) 1 cs., (Kenya) 1 dm.

Pharmaceutical Chemicals, etc.

BUSINESS has continued on a limited scale since the opening of the New Year. Hexamine and potassium bromide are offered at cheaper rates in one or two quarters by dealers, but it is anticipated that prices will improve when these small parcels have been cleared. Milk sugar is cheaper. Citric and tartaric acids and cream of tartar are unchanged.

ACETANILIDE is unchanged on a quiet market: B.P. crystals and powder, 1s. 4½d. to 1s. 6d. per lb. as to quantity.

AMIDOPYRIN is steady at the higher prices notified at the New Year: spot, half-ton lots, 12s. 6½d.; two cwt., 13s. 0½d.; less than two cwt., 13s. 3½d. per lb.

ASPIRIN shows no change with agreed prices at 2s. 9d. to 2s. 11d. per lb. as to quantity; most business is going to home makers.

BARBITONE is quiet but prices are very steady: spot, five cwt., 7s. 3d.; two cwt., 7s. 6d. and up to 8s. per lb. for small parcels.

BENZOIC ACID (B.P.) is unchanged, with quantities ex works at 2s. 0½d. to 2s. 1d.; spot parcels, about 2s. 2d. per lb.

BENZONAPHTHOL is steady but very quiet: quoted on spot at from 2s. 10d. to 3s. per lb.

BROMIDES.—There is no feature of interest to report here; price for potassium bromide from dealers is cheaper; business has been on a very modest scale: dealers quote ammonium, 1s. 10d.; potassium, B.P. crystals, 1s. 5½d.; granular, 1s. 5½d.; sodium, B.P., about 1s. 9d. per lb., and slightly less for ton lots. British makers' list prices are unchanged: ammonium, 1s. 11d.; potassium, B.P. crystals, 1s. 6½d.; granular, 1s. 6½d.; sodium, B.P., about 1s. 9½d. per lb. in cwt. lots, with prices for large quantities about one penny per lb. less.

CALCIUM LACTATE is steady but sluggish: quoted from 1s. 2d. to 1s. 3½d. per lb. as to quantity.

CHLORAL HYDRATE is firm, with home makers in a strong position: duty-paid crystals, 3s. 1d. to 3s. 3d. per lb. as to quantity.

CITRIC ACID (B.P. crystals).—There is nothing of interest to report: spot quoted prices are unchanged, with business of very little importance: spot, foreign, 1s. 11d. per lb., less 5 per cent. for quantities; to arrive, 1s. 11½d., less 5 per cent.; British is unchanged at 1s. 11d. per lb., less 5 per cent.

CREAM OF TARTAR is a poor market so far as business is concerned, and the tone is none too healthy: foreign (99 to 100 per cent. powder) is quoted on spot at about 102s. 6d. per cwt., less 2½ per cent. for quantities; British is 104s. per cwt. less 2½ per cent.

CROFOSOTE (B.P.) shows no change, with spot at 1s. 8d. to 1s. 9d. per lb., as to quantity.

CROFOSOTE CARBONATE meets with only occasional business: quoted at 5s. 8d. to 6s. per lb.

GUAIACOL CARBONATE is slow of sale: dealers offer on spot at about 4s. 6d. to 4s. 10d. per lb.

HEXAMINE is offered down to 2s. per lb. by dealers in one or two quarters, but in other directions prices are maintained at from 2s. 2½d. to 2s. 4d.

HYDROQUINONE has received more inquiry: quoted at 3s. 7½d. to 3s. 11d. per lb. as to quantity.

LITHIUM CARBONATE.—This market has yet to settle down since the import duty was reimposed: spot quotations are round about 5s. 3d. to 5s. 6d. per lb., but are likely to advance when the old free import stuff has been cleared.

METHYL SALICYLATE (B.P.) is steady at 1s. 6d. to 1s. 8d. per lb., with a fair business passing.

METHYL SULPHONAL meets with occasional business, with prices steady at 12s. 7d. to 13s. 10d. per lb. as to quantity.

MILK SUGAR is rather cheaper, Continental make offering at from 53s. to 54s. 6d. per cwt., according to quantity.

PARAFORMALDEHYDE has shown a little more life: quantities of 100 per cent. powder quoted at 1s. 7d. and smaller lots at about 1s. 8d. per lb.

PARALDEHYDE is unchanged, with business poor and competition keen: quoted at from 1s. 1d. to 1s. 4d. per lb., as to quantity and packing.

PIENACETIN continues steady, although business is not of much account: spot, two cwt., 3s. 10d.; less than two cwt., 3s. 11d. per lb.

PHENAZONE is unchanged but rather slow of sale: spot, two cwt., 7s. 2d.; less than two cwt., 7s. 3½d. per lb.

PHENOLPHTHALEIN is steady at the controlled prices of 5s. 11d. to 6s. 1½d. per lb. as to quantity; business limited.

POTASSIUM PERMANGANATE (B.P.) is moving off fairly well, with quantities at 5½d. and druggists' parcels at 6d. per lb.

POTASSIUM SULPHOGUAICOLATE remains very slow of sale, about 3s. 6d. per lb.

RESORCIN is at the controlled prices of 2s. 11d. to 3s. 2d. per lb. as to quantity, with crystals one penny per lb. more.

SALICYLIC ACID (B.P.) continues at the home makers' prices of 1s. 5d. to 1s. 7d. per lb. as to quantity; imported material is not on the market.

SALOL is offered on spot at the agreed prices of 3s. 7½d. to 3s. 10d. per lb. as to quantity; business poor.

SODIUM DIETHYLBARBITURATE is steady but quiet: spot, about 10s. per lb.; f.o.b. Continent, five cwt., 9s. 7½d.; smaller lots up to 10s. per lb.

SULPHONAL is quoted on spot at 10s. 1d. to 11s. 2d. per lb. as to quantity, with powder 1d. per lb. more; market is dull.

TANNIC ACID (B.P. *levis*) is steady but slow of sale: quantities, 2s. 9d.; smaller lots up to 3s. 2d. per lb.

TARTARIO ACID (B.P. crystals).—The tone here continues unsteady, although spot prices for foreign are maintained at about 1s. 3½d. per lb., less 5 per cent., with British make showing no change at 1s. 3½d. per lb. less 5 per cent. discount.

THYMOL is dull of sale with prices unaltered: synthetic, fine white, two cwt., 8s. 3d.; one cwt., 8s. 6d.; 56 lb., 9s. per lb.

VANILLIN is moving fairly well but competition is keen: ex clove oil, about 14s. per lb., with ex guaiacol about 13s. 6d. per lb., and lower prices in both cases for good quantities.

Industrial Chemicals, etc.

London, January 15.

A RATHER limited volume of business is being done, while the tone in almost every direction continues steady.

ACETIC ACID continues steady with a good business in progress: 80 per cent. technical, £36 15s.; 80 per cent. pure, £37 per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £66, in glass demijohns; glacial in barrels, £56 per ton ex store.

ACETONE is firm at the lower prices recorded at the new year; business is quite brisk: B.G.S., £71 10s. to £80 per ton, in drums, as to quantity.

AMMONIA (ANHYDROUS) continues to meet with a fair demand with prices steady at 10d. to 1s. per lb. in loaned cylinders, carriage paid; slightly less for very big contracts.

ARSENIC.—Terms for white Cornish 99 per cent. are no better, standing at £15 15s. upward f.o.r. mines. Demand is confined to small quantities. The U.S. output for January-October was 15,898 tons, against 16,048 tons in 1928.

BARIUM CHLORIDE (98 to 100 per cent. prime white crystals) is offering at cheap prices for odd spot lots at about £11 per ton; to arrive would be about £11 5s. per ton ex store.

CAUSTIC POTASH.—Convention prices continue unchanged, while there is a certain amount of outside competition: 88 to 92 per cent. solid, less than one ton, £34 10s.; one to five tons, £31; five to fifteen tons, £29 10s. per ton in drums, ex store; c.i.f., 30s. per ton less in all cases.

COPPER SULPHATE.—There has been little indication of any improvement in the export demand, but the tone remains very steady on the basis of fully £27 per ton f.o.b. for casks, less 5 per cent. as quoted by British Associated Makers.

FORMALDEHYDE continues in quite good sale, while prices are keen for important business: 40 per cent. by volume, £34 per ton in casks, ex store; slightly less for large quantities.

ISOPROPYL ALCOHOL is unchanged, with business improving: good makes, 11s. to 12s. per gallon in drums, carriage paid.

LEAD PRODUCTS.—Lead acetate is steady on a slow market: brown, £39; white, £40 10s. per ton in casks, ex store; Convention prices for red lead are about £36 10s., and for white about £48 to £59 per ton, with rebates for quantities.

LITHOPONE continues in steady call, with prices for 30 per cent. Continental red seal steady at £19 10s. per ton in casks, ex store; slightly less for contracts.

OXALIC ACID is a bright feature, with prices for quantities maintained at £32 per ton in casks, ex wharf; small spot lots, 32s. 6d. to 33s. per cwt. ex store.

POTASSIUM BICHROMATE is unchanged at the controlled price of 4½d. per lb., with a slight rebate for large quantities.

POTASSIUM CARBONATE is fairly busy, with dealers' prices unchanged: 90 to 92 per cent., £23 10s. to £24; 96 to 98 per cent., £25 10s. to £26 per ton in casks, ex store; slightly less for contracts.

POTASSIUM CHLORATE remains slow of sale, with quantities to arrive offering at 2½d. per lb. ex wharf; spot parcels, from 3d. per lb. ex store.

POTASSIUM PERMANGANATE is moving fairly well, with quantities in two-cwt. drums at 5d.; smaller lots, 5½d. per lb.

POTASSIUM PRUSSIAE is unchanged: quantities, £63 10s. to £65 10s.; single casks, 7d.; small parcels, 7½d. per lb.

SAL AMMONIAC is bright, with prices firm: dog-tooth crystals, £32; medium, £28; fine white crystals, £17 12s. 6d. per ton in casks, ex store; slightly less for contracts; grey galvanising, muriate of ammonia, £21 10s. per ton in casks.

SODIUM ACETATE is steady and business has been fairly good: spot, £20 15s. per ton in casks, ex store.

SODIUM BICHROMATE is unchanged at the agreed price of 3½d. per lb.

SODIUM HYPOSULPHITE is receiving fair attention, with the market steady: dealers quote pea crystals about £15 per ton in one-cwt. kegs; commercial quality, £9 10s. per ton in casks, ex store. British makers' price for pure crystals to home consumers on contract, £15 per ton, carriage paid to buyer's works.

SODIUM PRUSSIAE continues in fair call, with prices unchanged: quantities, 4½d. to 5d.; smaller parcels, from 5½d. per lb. ex store.

SULPHUR.—There is a steady inquiry for American crude at £5 12s. 6d. to £5 17s. 6d. per ton, while Sicilian flowers is £12 5s., refined ground £11, and roll £9 15s., all c.i.f. to arrive.

ZINC OXIDE.—Prices are becoming very competitive, with new home makers coming on the market: B.P., £42; white seal, £37; red seal, £35 per ton, carriage paid.

COAL-TAR PRODUCTS, ETC.—Conditions show no change of importance. Carbollic acid crystals continue firm and short in supply, although the market is not so active. Pitch continues at the old controlled price. ANILINE OIL is unchanged at 8½d. per lb., carriage paid, packages extra. ANILINE SALT is unchanged at 8½d. per lb., carriage paid, packages extra. BETANAPHTHOL is unchanged at 9½d. per lb. carriage paid. CARBOLIC ACID CRYSTALS are unchanged, with makers quoting for contract business at 7d. to 7½d. per lb., carriage paid; supplies continue limited; crude carbollic 60's, 2s. 5d. to 2s. 7d. per gallon naked at works. CRESYLIC ACID is dull and unsteady, with prices unchanged: pale 97 to 99 per cent., 2s. 2d. to 2s. 4d.; refined, 2s. 8d. to 2s. 11d.; dark 95 per cent., 1s. 9d. to 1s. 11d. per gallon naked at works. NAPHTHALENE is quiet, with prices unchanged: flakes and balls £14 15s. to £15 per ton in cases, ex wharf. METHYL ALCOHOL is unchanged on spot at about £42 per ton in drums; cheaper prices for quantities to arrive. PYRIDINE continues lifeless and nominal at 4s. to 4s. 6d. per gallon f.o.b. TULUOL is steady with the demand fair: commercial 90's, 1s. 10d.; pure, 2s. 2d. per gallon ex works. XYLOL continues dull, with commercial at 1s. 10d. and pure about 2s. per gallon ex works. PITCH continues at the old controlled price of 47s. 6d. per ton f.o.b. East Coast.

Fixed Oils, etc.

GENERALLY quiet markets are reported, with values showing but small fluctuations. Linseed oil and turpentine are slightly easier. Acid oils are firm; wood oil is again cheaper on spot. ACID OILS are firm as quoted; coconut and/or palm-kernel, 33s.; ground nut, 29s. 9d.; soya, 28s. 9d. spot. CASTOR is quiet and unchanged: pharmaceutical, 48s.; first pressings, 43s.; second pressings, 40s. per cwt. in barrels on the spot, in not less than one-ton lots. COCONUT.—Business has been poor all the week: deodorised, spot, 41s. 3d.; Ceylon, 33s. 9d. c.i.f.; Cochin, not quoted. COTTON is dull, but prices are maintained: deodorised, 38s. 6d.; common edible, 36s. 6d.; soapmaking, 34s. 3d.; crude, 31s. 6d. spot. GROUND NUT is quiet but steady: deodorised, spot, 41s. 6d.; crude Oriental, 37s. 6d. c.i.f. PALM KERNEL shows no change and is dull: deodorised, 40s. 3d.; crude, 34s. 3d. spot. PALM.—Business has been slow all the week; values are about unchanged on balance, closing rather weak: Lagos, 32s. 6d.; softs, 32s.; mediums, 32s.; hards, 32s. 3d.; bleached, 35s. spot. RAPE is slightly easier on a quiet market: deodorised, 44s. 6d.; crude, 32s. 6d. spot. SOYA is quiet at unchanged values: deodorised, 38s. 9d.; crude, 31s. spot. LINSEED (raw, naked).—Prices are slightly easier on the week for forward positions, while business has been rather restricted: on spot, 44s. 6d.; January, 41s. 3d.; February, 39s. 10½d.; February-April, 39s.; May-August, 38s. Boiled oil, on spot, 48s. TURPENTINE.—The market was at first very firm but fluctuated slightly on a comparatively quiet demand. The spot price closes easier at 43s.; February-April, 43s. 9d. per cwt. Deliveries for last

week were 1,567 barrels, making a total since January 1 of 2,900 barrels, comparing with 3,080 barrels for the same period last year. Stocks were returned at 30,840 barrels, against 32,413 barrels a year ago. Including the landings, the London visible supply made up at 39,984 barrels, which compares with 35,738 barrels at the same date last year. RESIN.—There has been little activity, but steadiness was maintained, while the American receipts were about equal to the demand. C.i.f. terms were as follows: American B/D 16s. 9d. to 17s. 6d., E/F 17s. 9d. to 17s. 10½d., G/I 18s., K/M 18s. 3d., W/G 19s. 1½d., and W/W 20s. 1½d. French W/W was quoted 18s. 10½d. c.i.f. for prompt shipment; the latter is attracting only little attention. Available supplies are said to be light. WOOD.—Hankow in barrels on the spot is dull and cheaper at 67s. 6d. per cwt.

LUBRICATING, MINERAL, BURNING OILS, ETC.—Quoted prices are generally unchanged in this section with business rather quiet in most directions. Lubricating oils are unsteady. BENZOL continues steady but quiet: standard motor 90's, 1s. 6d. per gallon ex works in tank wagons; ex London works, 1s. 7½d. FUEL OIL is steady but quiet: 950 gravity, £3 5s.; 890 gravity, £3 17s. 6d. per ton ex tank; cheaper forward. PARAFFIN OILS continue firm with prices unchanged: American standard white, 1s.; water-white, 1s. 1d. per gallon, barrels free, ex wharf. PARAFFIN WAX and SCALE.—Wax is quiet from 2d. to 5d. per lb., according to melting point in bags; scale is quoted for shipment at about £16 per ton, c.i.f. U.K. port. WHITE OILS are quiet: special No. 1, £25 10s.; No. 1, £24 10s.; No. 3 half-white, £21 15s.; No. 4 half-white, £20 per ton, drums and barrels free, ex wharf. SOLVENT NAPHTHAS are slow of sale: 90 to 160, 1s. 2d.; heavy 90 to 190, 1s. per gallon naked at works. PETROLEUM JELLIES are still short in supply, with the market steady: white to snow-white, £36 10s. to £46 10s.; amber and yellow, £18 10s. to £22; dark stiff green, £12 7s. 6d. per ton, barrels free, ex wharf. LUBRICATING OILS are unchanged, with the market dull and unsteady; spot, pales, £9 12s. 6d. to £21; reds, £11 to £21; dark cylinders, £13 10s. to £33 10s.; filtered cylinders, £23 to £42 per ton, less 2½ per cent. SOLUBLE OILS and CUTTING COMPOUNDS continue steady at £20 to £22 per ton net. No. 1 RUSSIAN OIL is offered on spot at £14 10s. per ton, less 2½ per cent., barrels free, ex wharf.

London Drug Auctions

Commercial Sale Rooms,
Mincing Lane, E.C.3,
January 16.

As might have been expected, the first drug auction of the year which took place rather earlier than it should have done, proved very disappointing, as buyers were unprepared to operate, and the demand was quite hand to mouth. Cardamoms and rhubarb appeared to be the only products which were wanted. Buchu and cardamoms were about steady, but decorticated seed was cheaper. Dragon's blood brought full prices, and honey was quite neglected. Ipecacuanha tended easier, with buyers holding aloof; kola and myrrh was plentiful, but without business. Rhubarb met with a small sale, and lower rates were accepted for grey Jamaica sarsaparilla. Tinnevely senna sold in retail, but for beeswax there was no public demand. The following table shows the quantity of goods offered and sold. The asterisk denotes private sales:—

	Offered	Sold		Offered	Sold
Aloes—			Coriander seed	100	0
Cape	62	0	Cubeb	44	4
Curacao	56	0	Cuscuta	29	0
Socotrine	19	0	Cuttle fish bone	45	0
Zanzibar (cs.)	3	0	Dragon's blood	54	3
Ammoniacum	14	0	Elemi	10	0
Anatto seed	14	13	Elderberries (cs.)	29	0
Araroba	8	0	Ephedra herb	3	0
Asafoetida	2	0	Ergot (Port.)	2	0
Balsam tolu	7	0	Eucalyptus oil	82	0
Benzoin—			Galbanum	3	0
Palembang	11	0	Gamboge	5	0
Siam	29	0	Gingergrass oil (pot)	4	0
Sumatra	106	10	Guaiacum	26	0
Bois de rose oil	3	0	Gum acacia	133	0
Buchu	44	7	Gum ghatti	25	0
Calumba	146	0	Gum karaya	256	0
Camphor (Ch. cr.)	10	0	Gurjum oil (cs.)	12	0
Cantharides (Ch.)	7	0	Henna leaves	80	0
Capsicum	53	0	Honey—		
Cardamoms	335	52	Brazilian	80	0
Cardamoms, green	5	0	Cuban	5	0
Cascara sagrada (tons)	2	0	Egyptian (tins)	20	0
Cassia fistula	97	0	Gnatemala	122	0
Chaulmoogra oil (cs.)	15	0	Haiti	37	0
Chicle gum	5	0	Jamaica	526	24
Chiretta	13	0	Mexican	142	0
Cinnamon quill	18	18	St. Lucia	161	10
Cochineal	11	0	San Domingo	144	11
Colocynth and pulp	77	0	Siberian	110	0
Copaiba (cs.)	35	0			

	Offered	Sold		Offered	Sold
Honey—			Sarsaparilla—		
Trinidad	2	0	Native Jam.	20	0
West Indian	9	0	Senega	7	0
Ipecacuanha—			Senna and pods—		
Cartagena	2	0	Alex.	89	0
East Indian	2	0	Tinnevely	314	10
Matto Grosso	21	0	Soy (Ch.)	5	0
Minas	3	0	Squill	20	0
Kino	5	0	Strophanthus	26	0
Kola	121	0	Tamarinds (E.I.)	5	0
Lime juice (cks.)	9	0	Tonka beans	14	0
Liquorice root	71	0	Tragacanth	124	13
Myrrh	82	0	Turmeric	275	0
Nux vomica	98	0	Wax (bees)—		
Olibanum	68	0	Abyssinian	22	0
Orange peel	21	0	Benguela	26	0
Palmarosa oil	7	0	Conakry	40	0
Pepper (Afr.)	90	0	East African	138	22*
Rhapontica root	39	0	Jamaica	14	0
Rhubarb (Austrian)	5	0	Madagascar	60	0
Rhubarb (Ch.)	145	10	Morocco	30	0
Sandarac	17	0	Mozambique	12	0
Sarsaparilla—			St. Lucia	1	0
Grey Jamaica	18	6	West African	5	0
Honduras	8	0	Wax candleilla	5	0

Next Auction—March 20, 1930.

ALOES.—Cape, Curaçao and Socotrine were plentiful, but little good quality was offered. There was no public business. A lot of 56 cases Curaçao offered and limited at from 100s. to 115s. per cwt. for ordinary dull coarse and capey to fair livery. Fair bright Cape seconds were held at 40s. per cwt., Socotrine at from 95s. to £6, and Zanzibar, in skins, at 95s. for fair hard hepatic. Privately, Curaçao is quoted at about 107s. 6d. per cwt. c.i.f.

ANNATTO SEED.—A lot of 13 bags inferior bricky Madras sold without reserve at 5s. 6d. per cwt., and for a single bag of fair bright Jamaica 53d. per lb. was wanted.

ARAROA.—A lot of eight cases from Bahia analysing 50 per cent. chrysarobin was bought in, there being no response to a suggestion of 3s. per lb.

BENZON.—The only sale consisted of ten cases good fair Sumatra seconds, well packed with small almonds, which realised £3 per cwt. Eleven cases Palembang seconds and thirds mixed were limited at 80s. Siam was more plentiful. Good small to medium loose selected almonds were limited at £29 to £30, and pea and bean size at from £26 10s. to £27 per cwt.

BUCHU.—No good green round description offered. Two bales of fair round rather stalky sold at 11d. to 1s. per lb., and a further five bales of common yellowish round sold at from 9d. to 10½d. per lb. Fair round slightly yellowish was limited at from 1s. 1d. to 1s. 2d., and a string of ovals at 10d. to 10½d.

CALUMBA.—A lot of 15 bags fair small to bold natural sifted sorts was bought in without mention of price, and a further lot of 131 bags of part small to bold fair natural sorts was held at 36s. per cwt.

CAMPHOR.—Ten cases Chinese crude analysing 90.10 per cent. were limited at 2s. 1d. per lb.

CARDAMOMS were about steady for pod, but decorticated seed was rather cheaper. The following prices were paid:—Ceylon—Mysore; bold fine pale smooth, 7s. 6d.; medium to bold palish to pale smooth, 4s. 8d. to 4s. 11d.; ditto, partly split, 4s. to 4s. 2d.; medium ditto, 3s. 6d. to 4s.; small dullish, 3s. 2d. Extra bold splits, 5s. 4d.; medium to bold splits, 3s. 6d. to 4s. 4d.; small split, 3s. 5d.; splits and pickings, 2s. 9d. to 3s.; Ceylon seed, 4s. 9d.; Bombay seed, 4s. 9d. per lb. A line of 199 cases mostly Indian imported in 1926 was submitted, and although there was no public demand, business was anticipated privately; extra bold long unbleached of this parcel were limited at 4s. 7d., medium to bold ditto at 4s. 6d. per lb.

CASCARA SAGRADA.—A parcel of two tons fair 1927 peel was limited at 67s. 6d. per cwt.

CASSIA FISTULA.—A lot of 43 bags of ordinary part wormy and rattley pod from St. Lucia was offered without reserve if pay charges, but failed to sell. Fair sound West Indian pod is selling privately at 25s. per cwt.

CINNAMON.—A lot of 13 bales Ceylon quills part coarse sold without reserve at from 1s. 2½d. to 1s. 3d. per lb. for No. 1 and No. 2.

COLOCYNT.—Ten bales of good pale Syrian pulped were limited at 10d. per lb., which price was also asked for further lots.

COPAIBA.—A lot of five cases opaque from Ciudad Bolivar analysed as B.P. 1914 was offered, and bought in at 1s. 3d. per lb. A further lot of 30 cases of thin balsam was offered and held at 1s. 4d. per lb.

CUBEB.—A lot of four bags fair slightly stalky sold at £6 10s. per cwt., and for five bales guaranteed 100 per cent. genuine £10 per cwt. was wanted.

CUSCUS.—A lot of seven bales fair East Indian was limited at 30s. per cwt., and a further parcel of similar quality, part slightly chumpy, was held at the same figure.

CUTTLE FISH BONE.—A parcel of 45 cases East Indian fair bold palish sorts was offered and bought in at 11d. per lb.

DRAGON'S BLOOD.—Three cases of good bright Singapore bag-shaped lump sold at £29 per cwt. Dull to middling Singapore slabs were limited at from £14 to £16 per cwt. Five cases Zanzibar drop were limited at £7.

EPHEDRA HERB.—Three bales Chinese (mahwang) were bought in at 4½d. per lb.

ERGOT.—Two bags of fair sound Portuguese were bought in at 2s. per lb.; 34 bags have arrived from Portugal.

GAMBOGE.—Five cases only offered and limited at £27 per cwt. for fair Siam orange-fractured pipe part very blocky and slightly mixed with dark.

GUM ACACIA.—In auction ten bags of good pale Ghatti were bought in at 65s., and for 15 bags ordinary dark part woody 50s. was wanted; 36 bags bleached Kordofan were limited at from 140s. to 150s. per cwt.

GURJUN OIL.—Four cases were limited at 8d. per lb.

HONEY met with quite a retail sale. The variety and quality of the Jamaica offered was rather better than usual, but only 24 packages were sold out of 526, comprising white set in barrels at 53s. per cwt. and light amber set at 45s. Ten cases St. Lucia light amber set sold at 39s. per cwt., and ten cases San Domingo brownish set somewhat sugary sold at from 37s. to 38s. per cwt.

IPECACUANHA was neglected. Of East Indian, two bags good fair quality were offered and bought in at 14s. 9d. per lb. Matto Grosso was easier at from 15s. to 15s. 6d. per lb. for ordinary lean to fair average quality, and for fair Minas 14s. 6d. to 14s. 9d. was wanted.

KOLA was plentiful, and good dried West Indian whole and halves were obtainable at 4d. per lb.

RHUBARB met with a small demand at steady prices. Three cases medium round Shensi with three-quarters fair pinky fracture sold at 3s. 10d. per lb., and a case of small ditto went at the same figure, all subject to sellers' approval; a case of Shensi pickings went at 2s. 8d. Of High-dried, four cases of medium rough round with common fracture went at 1s. 3d. per lb., and one case medium to bold round ditto went at 1s. 7½d. Bold round Canton of poor coat and fracture was limited at 2s. 6d., pickings at 1s. 10d., and flat High-dried at 2s. Best Shensi was limited at from 4s. to 4s. 3d. for medium to bold flat.

SARSAPARILLA.—Grey Jamaica was lower, six bales of fair realising 1s. 10d. to 1s. 11d. per lb., and in another interest 2s. per lb. was wanted for ten bales of fair. Eight serons Honduras were held at 2s. 3d. Native Jamaica was limited at 1s. 6d. to 1s. 7d. for ordinary mixed yellow part grey, and at 1s. 9d. for fair red.

SENNA was quite neglected, only ten bales Tinnevely being disposed of, comprising inferior small leaf at from 2½d. to 3d. per lb. Tinnevely pods were held at 5½d. to 7d. for dark to palish, and Alexandrian at from 3s. 9d. to 5s. per lb.

SOY.—Five casks Chinese (Sueloong owl brand) were limited at 2s. 6d. per gallon duty paid.

TRAGACANTH.—A lot of 13 bags of low pickings sold without reserve at 26s. per cwt.

WAX (BEES').—Although there was a good representation no business was done in auction. Twenty-two bags East African block had been sold privately. Fair Jamaican was obtainable at £7 10s. per cwt., Benguela block at £6 17s. 6d., and East African at £6 15s.

Bulgarian Rose Oil Exports

ACCORDING to the official figures published by the General-Direction of Statistics, Sofia, Bulgaria, exports of rose oil in September 1929 amounted to 138 kilos, valued at 15,239,936 leva, consigned to the following countries: Great Britain, five kilos; Germany, 21 kilos; Italy, eight kilos; United States, 69 kilos; France, 34 kilos; Switzerland, 100 grams; other countries, one kilo. During the first nine months of 1929 exports of rose oil totalled 2,350 kilos, valued at 232,013,439 leva.

Jamaica Pimento

A LARGELY attended meeting of pimento growers was held in Kingston under the auspices of the Jamaica Producers' Association (says the "Times" Trade Supplement) to consider the advisability of bringing the product under the influence of co-operative marketing. The meeting unanimously passed a resolution that it is necessary in the interests of the industry to form an association of growers to begin the marketing of pimento on co-operative lines, and thus to stabilise prices; further, that a Pimento Growers' Association should be formed under the protection of the Jamaica Producers' Association.

Gum Sandarac

ACCORDING to the U.S. Consul at Casablanca, Morocco, the trade estimates the 1929-30 crop of sandarac at about 120 metric tons. Arrivals at Casablanca for ten months of 1929 amounted to from 40 to 45 tons, leaving a balance to be shipped from the interior of about 75 or 80 tons. The total exports during the first ten months of 1929 were 37 tons, out of which 14 tons went to Germany, 12 tons to the United States, and 10 tons to France. Prices dropped from 1,800 fr. per 100 kilos, ex store at time of first arrivals to 1,400 fr. per 100 kilos during September. The market strengthened the first part of November and gum was quoted at 1,600 fr. per 100 kilos, ex store. It is reported that demand is poor in France, with no demand in Great Britain and little interest in future requirements from Germany.

Seychelles Patchouli Leaves

SAMPLES of dried patchouli leaves produced in Seychelles have been examined at the Imperial Institute, London, and the results of distillation trials have shown that the leaves furnished an excellent yield of oil. (See Bulletin of the Imperial Institute (Vol. XXVII, No. 3, 1929).) It was similar in solubility to the commercial patchouli oils imported from Singapore, which are recorded as being soluble in 3 to 10 volumes of 90 per cent. alcohol. The yield of oil and its solubility and general characters are considered satisfactory, and it would appear that by the adoption of suitable methods it should be possible to distil patchouli oil in Seychelles which would be able to compete on the market with that shipped from Singapore.

Spanish Olive Oil

At a recent conference of the Spanish olive oil producers and exporters in Madrid it was decided that the crisis in the industry was due to causes beyond the confines of Spain and that it affects all the olive-oil producing countries on the Mediterranean. The crisis has been brought about by excess of stocks, by the keen competition of oilseeds produced outside Spain. Also to the falling off in purchases, owing to buyers purchasing outside Spain, by smaller purchases through buyers purchasing immediate requirements only, and to the increase in the production of sulphur olive oil. The temporary permission granted for the importation of foreign oils and seeds has also to be taken into account. The conference proposed various measures to meet the situation, including the compilation of statistical data to show world production and prices, the confining of propaganda to organised producers, advertising among medical authorities as to the hygienic and alimentary properties of olive oil, the prohibition of the manufacture of oils from imported nuts and seeds. A further decline in prices of olive oil in the last quarter stimulated export trade, and shipments, reaching 3,015 metric tons, exceeded those made in the preceding quarter and in the first quarter of this year. Of the total exported, the United States took 1,132 metric tons, or over 37 per cent., Italy took 504 metric tons. In the third quarter of 1929, total exports were 5,858 metric tons, of which 3,271 went to Italy. Before prices in Spain declined sufficiently to become attractive to foreign buyers, foreign needs this year had been largely supplied by other producing countries.

Java Cinchona and Coca Exports

THE following table shows the exports of cinchona and coca from Java during the period January to October 1929, compared with those of the corresponding period of 1928 (amounts in kilos):—

	Cinchona		Coca	
	Jan.-Oct. 1928	Jan.-Oct. 1929	Jan.-Oct. 1928	Jan.-Oct. 1929
Great Britain..	kilos. 108,216	kilos. 573,806	kilos. —	kilos. 5,137
British India ..	99,809	—	—	—
Belgium and Luxemburg ..	—	51,036	—	—
France ..	—	289	—	10,374
Germany ..	20,671	—	40,601	52,081
Italy ..	30,293	59,479	—	—
Japan ..	249,973	578,667	22,739	—
Netherlands ..	4,963,952	6,083,649	248,001	408,919
Port Timor ..	25	—	—	—
Russia in Europe	2,084	—	—	—
U.S.A. ..	—	—	21,780	—
Total ..	5,475,023	7,346,926	333,121	476,511

Exports of quinine from Java during the first ten months of 1929 were 21,846 kilos, against 39,933 kilos during the same period of 1928.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

A Member's Dissatisfaction

SIR,—It is a pleasure to read both your and "Xrayser III's" remarks upon the conduct of the Pharmaceutical Society and the attitude of the councillors towards the ordinary members. The shroud of mystery with which they envelop themselves, drawn aside only occasionally to let us understand that the mighty burdens which the councillors are carrying for us are too much for our feeble comprehension, is the surest way to make for suspicion or entire indifference on our part. We suspect there is a clique at No. 17. The first thing we would like councillors to know is that we are aware that they are councillors because they like being councillors, and that we are not deceived by any "White Man's Burden" song and dance. We would be none the less grateful to them if they boasted of their pleasure in being councillors. This attitude of condescension reveals itself in several ways. First, general meetings at which important decisions are made are held in the middle of the morning when few people can attend. A recent president incautiously let out that little help is obtained by discussing policies in public. A result of this was the passing of the new Bachelor of Pharmacy regulations under conditions which have thrown out of work many teachers and is enabling young boys to supersede seasoned and capable hospital pharmacists, who, strange to say, thought they had elected a Council for their own protection. Secondly, when the members of the Council do come out to tell us all about it they treat us like a lot of infants and tell us nothing except that all those who grumble should think "What can I do for pharmacy—not what can I get out of it?" Why persist in this hypocrisy of pretending that pharmacists and the Society exist for the wonderful thing called pharmacy? Thirdly, this attitude of not paying enough attention to the view of the ordinary M.P.S. results in informing the principals of the private colleges of pharmacy that they must buck their ideas up. Now we ordinary members have a great affection for the private colleges, and think that instead of being treated as enemies they must be recognised as having been the backbone of pharmaceutical education. The wholesale acknowledgment of Government schools is bringing in large numbers of young people, who, without the selective action of apprenticeship, can get a long way into pharmacy without any relation to powers of absorption. The only effective way of teaching students is to bring them into specialist colleges. The Square is subsidised by us with £5,000 a year in order to enable about 100 students to get the University of London degree. We want that £5,000 spent on up-to-date apparatus to be loaned out to the private schools, where its value would affect a much larger number of students.

Yours faithfully,

PH.C. (14/1).

The "Cinderella of the Services"

SIR,—During last October the average number of persons in receipt of poor-law relief was approximately 1,032,100, and in 234,100 cases relief was granted mainly on account of unemployment. These figures suggest the magnitude of the poor-law service, well known as the "Cinderella of the Services." The poor-law service also provides and maintains most of the hospitals and infirmaries in this country. The service deserves well of the nation, and the poor-law has struggled bravely with destitution, want, sickness and pain. The transfer of poor-law hospitals and institutions on April 1 under the Local Government Act, 1929, from poor-law guardians to county and county borough councils means that the control of the great bulk of hospital accommodation in this country will then change hands. This

transfer of hospitals seems to have attracted as much public attention as anything in the Act. The latest figures available show that after April 1 there will be over 400,000 hospital beds under the control of local authorities, compared with 50,000 beds in voluntary hospitals. Voluntary hospitals have done splendid work, but the simple fact is that the great bulk of hospital treatment is already provided by the State. Probably this was inevitable. Sir George Newman has pointed out that altruism, self-sacrifice and devotion to duty are not limited, after all, to voluntary hospitals; and Dr. F. N. K. Menzies (chief medical officer, L.C.C.) has stated that he can name half-a-dozen infirmaries in London that are in many respects better than the best of the voluntary hospitals in the United Kingdom. And now a change of control is at hand for the poor-law, the "Cinderella of the Services." Hospital development is no doubt coming, and in the public interest hospital pharmacy should be developed on modern and enlightened lines. The hospital pharmacist accepts great responsibility, has given up four years of his life to obtain his qualifications, and must have highly technical and varied knowledge. He should be a principal officer—in some cases he already is—and should have proper recognition and status. The next few months will be historical for hospital pharmacy, and it is very much to be desired that county councillors who have expert knowledge of pharmacy will use that knowledge in the interests of the public welfare.

Yours faithfully,

ROBERT W. LINDSAY,

President, Guild of Public Pharmacists.

London, N.W.5.

Book-Keeping

SIR,—The description by "Fifty Odd" in "Settling in Business" of the way in which chemists' accounts are sometimes kept brings to mind some of the methods, or want of them, of various pharmacists I worked for in my assistantship days. One man pursued the idea mentioned in the article of estimating his profit, that is, he sent to the bank for his pass-book and the balance shown was what he considered profit; but he prided himself on his system, because whenever the balance became over a certain amount he transferred a portion of it to a private account in another bank, and so, as he said, he always knew what he was making. Fortunately for him he had one of those rare businesses where the returns always seemed to come in, and he was also more than fortunate with regard to rent and lease. Another man I was under had a system by which the invoices were kept between the ointment pots, each firm's invoices together; in those days it was only necessary to deal with five or six houses; when the statements came in he checked the amounts, tore the invoices up and paid on the statements, the receipts being the only record. Another employer adopted the method also described by the writer of paying wages, petty cash items, etc., out of the day's takings; and as some of the goods were paid for in the same way as well as some by cheque, I never could fathom how he knew where he stood. Yet another asked me when I first went if I knew anything about book-keeping, as if so I could enter up some invoices; he produced a file, one of the old-fashioned sort—a long wire with a wooden disc at the end—with quite three or four years' accumulation. I spent hours wading through these and eventually got them into some form of order; in the process I found many items of goods short-delivered, or received broken, for which no claims had been put in, and which, of course, were a dead loss. As a contrast to these, I remember, when I was looking for a business to purchase, coming across one pharmacist who, when I asked to see the figures, took me into the back room where there was a cupboard full of pigeon-holes all numbered and dated, and containing the daily till rolls all in consecutive order; each roll was accompanied by a card on which the day's sales were analysed into the various groups, and the whole lot were finally shown in a book ruled for the items and so arranged that the corresponding days in other years could be compared. I wondered when he found time to do his regular work. In these days, however, with the more stringent demands of the income-tax authorities, I should say that there are few chemists who could not

show some form of intelligent books to the prospective purchaser with double-entry book-keeping. I think that book-keeping should be made one of the subjects for the entrance examination.—Faithfully yours,

ACCOUNTS (6/1).

The Chemist's Title

SIR,—“Arkay” (14/12) has the right view-point in your issue of December 21. We are all pharmaceutical chemists, whether spelt with a capital P or not, and this is the only reasonable and commonsense way of describing the occupation of all chemists employed in pharmacy. Our slogan as qualified chemists should be “We keep our title.” The Chemist (capital C) is still the man who is looked to by the public when a little advice and help is required in minor ailments and injuries. The chemist is consulted to-day in matters of diet, etc., and the public think well of him as a man and a friend; let us not be cajoled or persuaded to forfeit the title we are known by, or think we are going to reap any additional benefits as “pharmacists.” My advice is: give the “Major” man a degree if he wants it, and give the stores the title of pharmacist; I wonder how many would take it up? This would enable the Society to retrieve the blunder they made in allowing our title to be “pinched” by company law.

Yours, etc.,

STRYCHNINE (13/1).

Choosing a Career

SIR,—The article by Mr. E. M. Holmes (*C. & D.*, January 4, p. 17), besides being a message to the younger brethren of the craft, affords an opportunity to those of us who are not exactly beginners to indulge in a little retrospective meditation. The popular impression of the chemist's business, that it is a highly profitable one and easily entered into, was mine also, although I was not aware of it when I first started. A distant relative had a pharmacy in a small market town and was known to be a man of some substance, and this induced my parents to choose pharmacy as my career. In after years, when I did not reproduce the same results within a year or two after qualifying, it was, of course, pointed out to me that I was evidently not much use. In spite of this I have so far managed to earn a living out of pharmacy, although I recognise now that probably I could have done much better in some other calling for which I might have had a greater inclination. Mr. Holmes says he has noticed that the best and most successful students at the examinations do not, as a rule, enter retail pharmacy, and I am sure that his conclusion is a true one; but at the same time it is a severe reflection on retail pharmacy as carried on in this country. Mr. Holmes goes on to speak of the need for co-operation among chemists and the possibility of two or three average businesses combining to meet the growing overhead charges of the day, and the employment of two qualified men to attend to prescriptions; I am not quite sure what he means, but as I read his remarks I take it he suggests that where there are two or three chemists in a town they should combine and conduct the whole of the concerns in one establishment. This on the face of it would lessen the costs of management, but would not the disappearance of two out of the three shops leave a blank in the town which would speedily be filled up again by new-comers, and so lead back to the original position? A better form of combination, to my mind, would be for all the chemists in a given town to form themselves into a group for the purposes of buying in bulk, for regulating prices, and for preventing overlapping in many ways, while still retaining their own individuality to the public. His recommendation that the chemist should be paid a definite fee for dispensing in addition to the retail price for the medicine follows the rule that many of us have advocated time after time and is adopted in the *C. & D.* Retail Price List. I think, however, that Mr. Holmes goes a little too far when he says that the retail chemist cannot hand over his responsibility to the wholesale house, because under modern conditions he is compelled to buy many galenicals ready made from his wholesalers. Up to a certain point the pharmacist examines or checks the drugs he receives. If, however, it is meant that

every drug and galenical received by the retailer should be tested or analysed for standard and quality as it is in a wholesale laboratory, then I am compelled to say that the average retail chemist has neither the time nor the convenience to do it. Years ago I followed Mr. Holmes's advice for getting experience in the wholesale and abroad, and have found it of incalculable value in after-life when in business for myself.—Faithfully yours,

EN GEOS (14/1).

Inviting Losses

SIR,—I am beginning to think that there must be something in the chemist's business which causes men engaged in it to lose all sense of proportion and perspective. In the note entitled “N.H.I. Prescription Exchanges” (*C. & D.*, January 4, p. 5), “Outlander” evolves a scheme for the exchange of scripts which have been dispensed outside their own area; yet he admits that the chemist should not accept such scripts. It is definitely laid down that the prescription form should be presented to any panel chemist in the area of the committee which issues it; there is also a special scheme for providing for emergencies under the heading of “temporary residents,” and yet some chemists must go out of their way to invite loss by dispensing scripts which are absolutely out of order. When we are bound down to the letter of the contract in every way, censured or fined for such things as small percentage errors of ammon. carb., when, if the fund is not sufficient to meet the demands on it, the chemist has to stand the loss, then, if we have any common sense at all, we in our turn must observe the wording of the contract. Any chemist, therefore, who dispenses an irregular script is deliberately throwing his money away.—Yours truly,

WARNED (13/1).

Are Chemists Business Men?

SIR,—Quite recently I have returned to London, having had the following experience. An old-established product, retailing at 6d. and 1s., is to be heavily advertised in chemists' local papers for six months, and unfortunately it was my duty to “stand and deliver” the goods to my chemist friends. Here are the remarks of my first, and most of them: “Well, old man, you create the demand, and I'll stock it.” Is that considered co-operation? My fourth call was a high-class store with toilet department, whose buyer proclaimed: “That's just the thing we want” (meaning local advertising), and thereupon placed a substantial order. Now, instead of coming away from that town with 90 per cent. of chemists' orders my returns sheet showed 15 per cent. chemists and 75 per cent. stores. Whilst quite realising the fact that most of us have not money to burn, it is certainly up to the chemist to be even a runner in the event; but usually we find him coming in when the “pickings” are gone.—Yours faithfully,

REPRESENTATIVE (13/1).

A British Spa Water

SIR,—Having read the very interesting article on “Darkov Iodide Waters,” by Dr. J. G. F. Druce in your issue of January 11, the thought struck me that there are probably among your readers a great many who are not aware that we, in this country, have a very valuable bromo-iodine spring. The spring at Woodhall Spa, although not so rich in iodine and bromine as that of Darkov, is much richer than many celebrated Continental springs of a similar nature.—The following is an analysis of the water:—

	Gm. per litre
Potassium iodide	0.00768
Potassium bromide	0.5093
Potassium chloride	0.01939
Sodium chloride	20.0872
Magnesium sulphate	0.0835
Magnesium chloride	0.5528
Calcium chloride	1.5085
Silica	0.0098
Iron oxide and aluminium	0.0053
Total solids	22.3254

It will be seen that this compares very favourably with the waters of most Continental spas.

Yours faithfully,

Woodhall Spa.

W. H. HUBBERT.

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics

Amateur Recipes

J. H. (11/1) sends us three recipes that were recently handed over his counter by a customer who had copied them from an untraced publication. We quote the two worst. "Vanishing Cream."—Isinglass, $\frac{3}{4}$ oz.; glycerin, 3 oz.; boric acid, 1 drachm. "Cold Cream."—White wax, $\frac{1}{2}$ oz.; spermaceti, 1 oz.; sweet oil, 4 oz.; sodium borax, $\frac{1}{2}$ drachm; oil of lavender, 10 drops; lavender water, 2 oz.

Warning

R. Hovenden & Sons, Ltd., Berners Street, London, W.1, and City Road, E.C.1, inform us that unauthorised persons have been endeavouring to collect goods by representing that these goods have been ordered by Messrs. Hovenden. Any person presenting an order representing it to be from them and asking for delivery of the goods mentioned therein will be in possession of an authority signed by the managing director, Mr. A. J. Carter. The authority will also bear the signature of the messenger seeking to collect such goods.

Emplastum Cantharidis

This does not occur in the B.P. 1914. What must be supplied? Methinks that of 1898 with its distinctive greenish shining particles due to the wing sheaths of the insect itself. Reviewing this formula it is interesting to note that in each succeeding B.P. from 1864 it has been the object of the affection of the alterer of official formularies. In that of 1867 the quantities are the same, and the directions different. That of 1867 was lifted unaltered in quantities or directions for the 1885 B.P. In the 1898 edition composition and directions were altered, and the latter not for the better. Soap plaster was introduced, which is noted for its property of becoming hard by age, in place of the suet. In the order of mixing, the directions are fundamentally wrong, and now the B.P. 1914 alters system of weights, quantities and directions and the novel introduction of cantharidin, thus making it no longer emp. lyttæ, a well-known and acknowledged synonym. All this fever for variation is a pity, because of the irritation to the manufacturer and pharmacist, and notably to the pharmaceutical rhymster, who for many years cherished the following mnemonic of its composition:—

"Something from a beetle,
Something from a bee,
Something from a sheep and pig,
And something from a tree."

—Hugh Lyre (29/10).

Legal Queries

J. N. (8/1).—The use of the title "Laxative Vegetable Tablets" does not render the article liable to medicine-stamp duty.

P. P. (4/81) asks what is the cost of registration of a trade name. [The fee for registering a business name is 5s., and the necessary forms are obtainable from the Registrar of Business Names, Somerset House, London, W.C.2. Further particulars are given in the *C. & D. Diary*, 1930, p. 341.]

F. V. (14/81) engaged an assistant who, however, did not present herself for duty on the appointed day, having, in the meantime, taken another post. Is she liable to pay "F. V." a month's salary? [Technically, the assistant is liable to pay damages for breach of contract; but, in order to recover damages, "F. V." would have to prove that he had actually suffered damage as the direct result of her failure to enter his service. If his claim succeeded, the amount of damages, if any, that he would be awarded would be the estimated amount of the damage he had suffered—not necessarily a month's wages.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

Enquirer (13/128).—DRUG-STORE BEETLE.—The powdered cummin seed is infested with the beetle *Sitotropa paniceum*, L. This beetle is a frequent pest of dried vegetable powders and drugs, including soup powders, cayenne pepper, and others, as well as occurring in old biscuits and other dried food-stuffs. In fact, the common name for it is the "drug-store" beetle. The only way to get rid of it is to destroy the infected goods, and to take particular care to use up all old stock before renewing.

Regnoth (17/10).—SEASICKNESS POWDERS.—One powder (A) is coloured brown and consists of a white principle extractable by ether, which constitutes quite half, perhaps two-thirds, of the components, a vegetable powder in small proportion, which has characters in common with those of ipecacuanha, and possibly a very little nux vomica. The ether-soluble substance contains no chlorine, nitrogen or sulphur, and yields no characteristic reactions with reagents. It appears to melt much below 100° C., and to be to some extent volatile with but little, if any, decomposition. It would seem to be a substance of very simple constitution. The quantity of material was too small wherewith to make any systematic analysis.

Powder B is coloured pink, but appears to be otherwise a simple substance. It contains no chlorine, nitrogen or sulphur; it yields no ash, melts at a temperature rather above 100° C., and is only sparingly soluble in water. In its general behaviour it recalls the carbohydrates, and on heating it evolves an odour suggestive of cellulose. The quantity was too small to permit of further tests which might lead to its identification.

H., Ltd. (30/11).—POULTRY MIXTURE.—This is a green, aqueous liquid smelling slightly of creosote, said to have been obtained from a farmer who uses the mixture for colds. It was found to contain ferrous sulphate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$) 4.2 per cent., cupric sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) 2.8 per cent., and zinc chloride 0.5 per cent.

E. B. (2/12).—BREAD IMPROVER.—Of these two samples the second is said to work the better. This has the appearance of somewhat damp milk powder, but it contains only 6.5 per cent. of moisture; it may perchance hold a little glycerin, as suggested by our correspondent, which is in harmony with its remaining sweet although "damp." The ash content is 7.0 per cent., which is indicative of its being a skimmed milk powder, which indeed it seems to be. The sample "A" made into a free powder by a little calcium phosphate mixed in, is essentially soluble casein. Moisture, 8.8 per cent.; ash, 7.7 per cent.

Tudor (30/11).—FOOT SALVE.—This ointment appears to contain only salicylic acid (50 to 55 per cent.) and paraffin ointment.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," January 15, 1880
Artificial Diamonds

There is at least a chance that the year now opening may be distinguished in chemical history, as the year in which the oft-indulged dream of the manufacture of artificial diamonds shall have been accomplished. Mr. James Maclear, of the St. Rollox Chemical Works, Glasgow, claims to have commenced the solution of the problem after working at it for thirteen years. At least, what he claims is, that he has crystallised carbon, and that his crystals so prepared possess the extraordinary hardness characteristic of the natural stone. . . . If Mr. Maclear has got so far he will probably get further. His experiments will certainly be watched with interest, and in some quarters even with anxiety.



[Commenced C. & D., July 5, 1924]

Scammony.—The plant yielding scammony, *Convolvulus Scammonia*, Linn. (N.O. *Convolvulaceae*) is a twining herbaceous plant much resembling the *Convolvulus arvensis* of this country, but differs in having a large taproot, from which ascend a number of slender leafy stems. It is indigenous to the countries on the Eastern basin of the Mediterranean, growing in waste bushy places in Syria, Asia Minor, and Greece, extending to the Crimea and Southern Russia, but for trade purposes is collected chiefly in the neighbourhood of Aleppo and Smyrna. Scammony, or scammonium, consists of the dried milky juice of the root, and has been used as a medicine from very early times. Theophrastus, in the third century B.C., was acquainted with it. It was also well known to Dioscorides and Pliny. It was then also known by the name of "Diagrydion." In this country it was used in the tenth and eleventh centuries, and was apparently one of the medicines recommended to King Alfred the Great by Helias, patriarch of Jerusalem. A small quantity of scammony was formerly obtained about the woody hills and valleys of Lake Tiberias and Mount Carmel in Palestine. The method by which it is collected is fully described by Mr. S. H. Maltass, of Smyrna, in the "Pharmaceutical Journal" (1), vol. 13, 1854 (p. 264). The root of the plant is exposed for four or five inches deep by moving the earth away from it. The top is then cut off in a slanting direction about two to four inches below the crown, and a fresh-water mussel shell is stuck in below the lowest edge so as to receive the milky juice. The shells are left until the evening and then collected, and the cut part of the root scraped with a knife to remove any congealed particles of the milk. The contents of the shells and the scrapings are then emptied into a covered copper pot or leathern bag and carried home, made into a homogenous mass and put out to dry. This consists of the best quality, or Virgin scammony; but sometimes it is kept until a pound or two is collected, and then placed in the sunshine to soften and kneaded into a plastic mass. With this long exposure the juice undergoes fermentation, and acquires a strong cheesy odour, a nearly black colour, and a more or less porous appearance. This forms the Aleppo scammonium of commerce. In fragments it is seen to be yellowish brown and translucent. In commerce true scammony, or scammonium, is catalogued, the finest as Virgin and a second quality as Aleppo. At one time the Smyrna scammony was considered to be the best, but at the present time Aleppo scammony seems to be the better quality. There is a third quality known in the trade as Skilip scammony, which contains only 30 to 40 per cent. of resin, a quantity of chalk or calcareous matter, and much wheat starch. This kind may be recognised by not being brittle, as genuine scammony is, and by having a dull opaque surface of a greyish-brown tint. It finds a market in Brazil and South America, where there is a demand for cheap scammony. Pure scammony contains 88 to 90 per cent. of resin and a small percentage of gum, so that it is practically a gum-resin. It is due to the presence of gum that genuine natural scammony when rubbed with a wetted finger shows a milky surface. Any natural scammony that yields 70 to 80 per cent. of resin is classed as scammonium or Aleppo scammony. A few starch grains are sometimes found in Aleppo scammony, but they are different in shape to the starch of wheat, which is usually found in quantity in Skilip or adulterated scammony. Chalk may be detected by a drop of acid applied under a lens, when effervescence can be seen, the presence of other resins, except jalap,

can be detected by dissolving in an alkali and adding an acid, when they would be precipitated, while scammony resin would not. Pure scammony should not yield more than 3 per cent. of ash. The *Scammonia resina* of the B.P. is a different product from the resin obtained from the root of *Convolvulus scammonia*, since the B.P. allows it to be prepared also from a root known in commerce as Mexican scammony, but which is identical with the Orizaba jalap root derived from *Ipomaea orizabensis* and contains an ether-soluble resin like that of the resin of true jalap, *Ipomaea purga*. It is extracted from the roots by alcohol and precipitated by pouring the concentrated solution obtained by distilling off the alcohol into eight times its volume of distilled water. When dried it should contain not less than 75 per cent. soluble in ether. The resin, which has been considered to be identical with that part of jalap resin which is soluble in ether, has been distinguished by chemists under the name of scammonin, but this name is not used in wholesale drug lists, the name of jalapin being reserved for the part of jalap resin which is insoluble in ether. Nevertheless, the preparation sold under the name of jalapin often consists of scammonin, and is soluble in ether.

Scammony Root.—Occasionally the dried root is exported to this country. It consists of stout woody cylindrical pieces two to three inches in diameter, covered with a rough furrowed greyish-brown bark. Internally it is a pale brown in colour, tough and resinous. The transverse section shows a number of separate nearly circular bundles distributed throughout the parenchymatous ground tissue, also numerous resin cells. The external surface of the root shows that it is more or less spirally twisted, which is a characteristic feature. It yields 5½ per cent. of resin. Excellent illustrations of the scammony plant and of the structure of the root are given in Planchon and Collin "Drogues simples" (tom. 1. pp. 622-626, figs. 515, 519). The scammony plant can be grown in this country and flowers here, but a severe winter kills it. There can be no reason apparently why it should not be profitably cultivated in those of our colonies where the temperature will suit it. Scammony resin is usually employed as a drastic purgative or hydragogue cathartic to relieve cerebral congestion by lowering blood pressure and acting quickly, usually within five hours. The action is greatly facilitated by bile, which assists solution. It is also used as an anthelmintic with santonin and calomel. When given in pills an equal weight of soap promotes solution in the intestines and increases the purgative action of the drug. The dose does not act until it reaches the duodenum.

Scopolamine.—This alkaloid was isolated originally from *Scopolia japonica*—N.O. *Solanaceae*—and was later found to be identical with hyoscyne. It is now usually obtained from *Datura metel*, the leaves of which contain up to 0.5 per cent. of total alkaloids, mostly scopolamine, or from datura seeds, B.P., which contain about 0.2 per cent., together with other alkaloids. In smaller amounts scopolamine occurs in most species of datura and hyoscyamus, the former usually containing a larger proportion of scopolamine than of the other solanaceous alkaloids. Some confusion has occurred in the nomenclature of the various stereoisomeric forms of hyoscyne. The name "Scopolamine" is sometimes restricted to the optically inactive form, which in this country is more usually designated *dl*-hyoscyne or atropine. The name has also been applied, particularly in France, to the pure levorotatory form. In the B.P. 1914, and the U.S.P. X scopolamine is officially given as synonymous with hyoscyne. The free base is a syrupy liquid, soluble in water, and in organic solvents giving levorotatory solutions. For the aqueous solution, $[\alpha]_{20}^{20} = -28^\circ$. The base is used as a mydriatic, one half to one per cent. in castor oil or soft paraffin. Both the base and its salts are readily converted to the inactive racemic forms by the action of heat or of alkalis. The racemic base is a crystalline solid. For internal use one of the halogen salts is usually employed, the commonest being the hydrobromide—hyoscyne hydrobromide, B.P.— $C_{17}H_{21}NO_4 \cdot HBr \cdot 3H_2O$. The commercial salt is a mixture of the hydrobromides of the *lævo*- and inactive forms, the physiological activity of the latter being only

The C.&D. Commercial Compendium

half that of the former. In some foreign pharmacopœias a limit is set to the amount of the less active form permissible by the inclusion of limiting figures for the optical rotatory power. Thus in U.S.P. X, for an aqueous solution containing 5 per cent. of the anhydrous salt $[\alpha]_{25}^{20}/D$ is required to be between -22° and -25.75° . The pure *lævo* salt melts at 193° and the inactive form at 180° . The U.S.P. X gives the m.p. of the anhydrous salt as 190° - 192° . It is a white odourless crystalline compound, soluble in water 1 in 4 (U.S.P. X, 1 in 1.5 at 25°) and in alcohol 1 in 14; nearly insoluble in chloroform and ether. It is used in medicine as a narcotic in many forms of mania and cerebral excitement; also to control the tremor of paralysis agitans and the vomiting of pregnancy, and in the treatment of the alcohol and morphine habits. Occasionally the narcotic effect is preceded by a stage of excitement so that it is not altogether reliable in its action. It is also used as an adjunct to other anæsthetics, in which connection it is extensively employed with morphine in the conduct of labour by the "Twilight sleep" method. This is particularly useful in cases where labour is likely to be unduly prolonged. The patient is kept perfectly quiet in a darkened room and an initial dose such as morphine gr. $\frac{1}{2}$ and scopolamine gr. $\frac{1}{10}$ injected when the first stage is well commenced. While the morphine dulls the pain the function of the scopolamine is to produce amnesia, the combined effect being that although the patient experiences the pains to some extent, memory of them is soon lost. Further injections, of very much smaller doses of scopolamine only, are given every hour, as required to maintain amnesia. The main disadvantage of the method is that delayed respiration is more common in the child, but, on the other hand, there is a complete absence of shock to the mother. Scopolamine may be distinguished from atropine and hyoscyamine by the white precipitate given with mercuric chloride. The base dissolved in hydrochloric acid and treated with auric chloride gives an aurichloride melting at 198 - 200° . The hydrobromide also gives an addition product with auric chloride melting at 215° . It should be free from apatropine, as shown by the following test: One drop of $N/10$ permanganate solution is added to 15 c.c. of a 1-per-cent. solution of the hydrobromide. The pink colour should not fade in five minutes. In cases of poisoning, emetics or the stomach pump should be used. Tannin, or strong tea, and a hypodermic injection of pilocarpine may also be given.

Screens, Disintegration.—Used for the purpose of separating particles (e.g., of sand) into two or more different grades of fineness. Mechanically worked screens are usual. Two kinds are employed, the fixed type, which may be flat, conical or cylindrical, and the movable type, usually reciprocating or rotary. Flat screens are made from wire, either in mesh or stretched tightly in one direction. Perforated metal plates are also used.

Screw Press.—One function of the screw is to apply pressure in the direction of its axis by comparatively simple means. The principle is used in the hand tincture-press, consisting essentially of a cylinder fitted with a circular disc, which is pushed downwards by the turning of the screw. The liquid from the marc passes out through a spout or pipe for collection in another vessel.

Scrip.—A term used on the Stock Exchange. It is a contraction of the word "subscription." A scrip certificate is issued on payment of the allotment money for shares in a joint stock company or bonds of a Government loan. It is a provisional certificate, and is exchanged in due course for the share certificate or bond when all the instalments are paid. On the back of a scrip certificate will be found the dates of the various payments with details, such as Application, Allotment, First Call and Second Call. A scrip certificate entitling a person to become the owner of shares requires an impressed stamp; yet a share certificate, although a document under seal, does not require stamping.

"The Script" is the name given to a monthly journal circulating mainly in the interests of London pharmaceutical activity. It was founded in 1913 and has reached its 192nd number. Its editor is Mr. Herbert Skinner, 66 Priory Gardens, Highgate, N.6; annual subscription, 5s. One of its subsidiary interests is to foster sport in pharmacy, for which it has instituted several cups and prizes, notably in bowls, tennis, golf and rifle shooting.

Scutellaria.—See Skullcap.

Seal Oil is obtained from the blubber of various species of seal. The oil of commerce is of four different qualities of varying colour, water-white, straw, yellow and brown, depending for their colour on the time of rendering from the blubber. That which is extracted on board ship from fresh blubber is white, while the longer the oil remains in contact with the tissues of the animal the darker it becomes. Increase of the temperature of extraction also darkens the oil. The mixed fatty acids consist of about 17 per cent. palmitic acid and 33 per cent. liquid acids yielding on oxidation a mixture of dihydroxypalmitic and dihydroxystearic acids, giving rise to the inference of the presence of oleic and phytostolic or hypogastic acids in the oil. The hexabromide test yields 27.54 to 27.92 per cent. of ether-insoluble bromides. Only 19.8 to 19.9 per cent. of mass which separates from a liquid portion is obtained insoluble bromide is given by the fatty acids. A paste in the elaidin test. A liquid fatty acid absorbing 306.8 per cent. of iodine has been isolated from the oil of the northern seal. The constants of seal oil are:—Sp. gr. at 15° , 0.9240-0.929; solidifying pt., -2° to -3° ; sap. value, 178-196.2; iodine value, 127-152.4; Reichert value, 0.07-0.22; Hehner value, 92.8-95.45. The mixed fatty acids have:—solidifying pt., 15.5 - 15.9° ; m.p., 22 - 23° ; neutralisation value, 190.4-196. The oil is used largely in soap making, and the better qualities for burning in lighthouses or as an adulterant in cod-liver-oil. The chief adulterants of seal oil are mineral oils and rosin oils, which are easily detectable. Adulteration with fish oils is not so easy, as neither the iodine value or the hexabromide test give reliable indications. The best criteria at present available are the taste and smell of the oil.

Sea Salt.—Sea salt, known also as bay salt, is found in solution in sea water to the extent of about 2.7 per cent. It is one of the most important natural salts. Different methods of extraction are used, depending somewhat on climatic conditions. On the Mediterranean shores, where the concentration of salt is greater than in the open ocean and the sun is warm, it is only necessary to run the sea water into shallow trays lined with clay and let the water evaporate. In temperate climates, the water is first concentrated in buildings called graduation houses. These are wooden structures open on the sides, ten or eleven yards high, 300 or 400 yards long, and facing in the direction of the prevailing wind. The houses are filled with brushwood or bramble-wood and the brine is pumped up into perforated troughs and allowed to fall, thereby increasing the surface area and hastening evaporation. This process is repeated two or three times and finally completed by heat. In some cold countries, such as Russia and Sweden, salt water is allowed to freeze, and the ice, which consists of nearly pure water, is taken away, leaving, after repeating the process several times, a mother liquor sufficiently strong to boil down.

Sea Water.—Schweitzer's analysis of sea water gives in 1,000 gr.:—Water, 964.744 gr.; sodium chloride, 27.059 gr.; potassium chloride, 0.765 gr.; magnesium chloride, 3.667 gr.; magnesium bromide, 0.029 gr.; magnesium sulphate, 2.296 gr.; calcium sulphate, 1.407 gr.; calcium carbonate, 0.033 gr. The content of sodium chloride varies. Iodine is found in the water of the Mediterranean and in the ocean. Theonine, lead, copper, silver, iron and manganese are alleged to have been found in sea water. According to Pasquier, sea water is a gentle purgative after being charged with five times its volume of carbon dioxide. The dose is from half to one pint.

1919-1929

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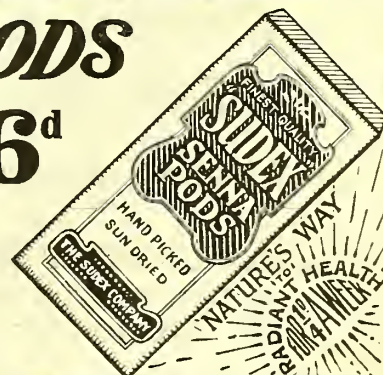
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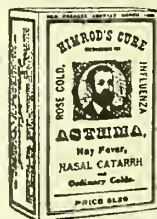
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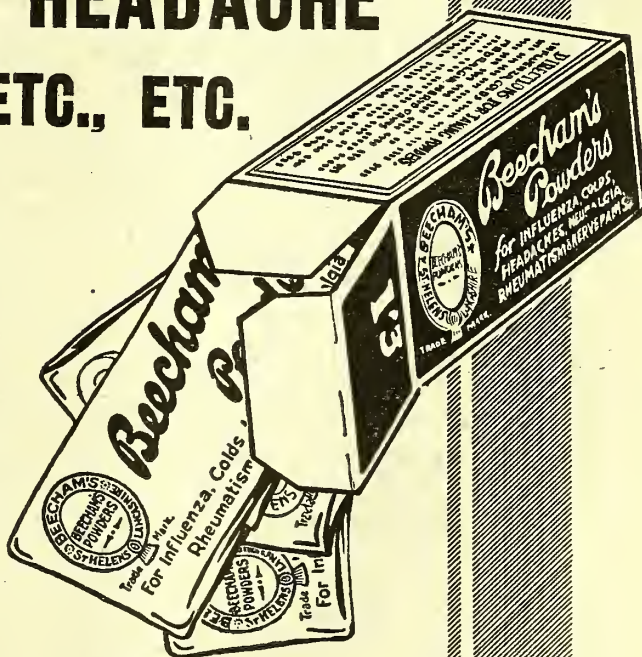
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ACCEPTING the advice of a number of leading chemists to provide high-class display features we have pleasure in announcing the completion of a new series, exclusively produced for chemists.

The illustrations on these pages represent actual photographs of cut-outs just received from the printers. The size of each is approximately 22 by 14 inches, and the printing has been executed in full colour with a gloss finish. The composite display shown below is a folding combination in group form of the same figures and has been produced to place on counters, shelves, and in corners and recesses.

From the point of artistic value these displays will not only attract attention, but they will add tone to your display work—give an undeniable impression of progression—and the 'ASPRO' messages link your store to the largest medicine advertising campaign in the world.

Simply write or 'phone, and a complete set will be forwarded to any chemist in Great Britain.

There is no doubt that the new displays will further enhance 'ASPRO' sales for chemists. Turn up your ledger and analyse your 'ASPRO' purchases. IF YOU ARE NOT BUYING ON OUR BONUS TERMS you are losing an average additional 17 per cent. net profit, so figure out exactly what this extra percentage would mean to you EACH YEAR. With the cost of doing business rising higher year by year, is it good business to MISS an extra 17 per cent. net?

The 'ASPRO' bonus is as follows:—On a one gross order for 10's the bonus is one dozen packets; on half-gross order, 2 dozen packets. Half gross 10's is the minimum order accepted for Bonus purposes.

17% Extra Profit if You buy Your 'ASPRO' Supplies on Bonus Terms

On a one gross order for 27's the bonus is 2 dozen packets, on a half-gross order 1 dozen packets, and on a quarter gross order ½ dozen packets. A quarter gross order is the minimum quantity. There is no bonus on 5's or 60's.

The conditions are that the Chemist who buys on these terms undertakes to display prominently 'ASPRO' advertising matter in his shop window for 14 days, and sell at advertised prices. As 'ASPRO' is so extensively advertised, this action will not only bring customers into the Chemist's shop to purchase 'ASPRO,' but should enable the Chemist's staff to make other sales to these customers. Acceptance of Bonus is considered acceptance of conditions regarding display and selling prices. For Bonuses it is not necessary to buy both sizes at the same time, i.e.,

single lots 6 dozen 10's or 3 dozen 27's will qualify the Chemist.

You order as follows:—We do not sell direct to the Chemist. All our business goes through Wholesalers. Orders may be sent either to your Wholesaler or direct to us. If to us, state the name of your Wholesaler, so that we may forward the order on and the Bonus will be supplied direct by us.

Ordinary prices for 'ASPRO' are as follows:—

3d. size containing 5 tablets 2/3 dozen.
6d. size containing 10 tablets 4/6 dozen.
1/3 size containing 27 tablets 11/6 dozen.
2/6 size containing 60 tablets 21/- dozen.
Less 2½% 30 days.

NOTE.—1/3 size contains 2 extra tablets. The 2/6 size 10 extra tablets.

'ASPRO' consists of the purest Acetyl Salicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Agents—
GOLLIN & CO. PTY. LTD.
(Aspro Dept.)

SLOUGH, Bucks.

Phone - - - Slough 603.

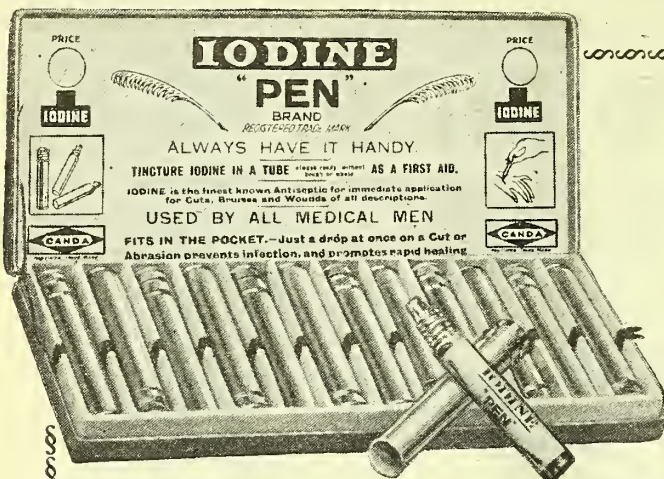
No proprietary right is claimed in the method of manufacture or the formula.



Composite Display for Shelves and Recesses.
Printed in Full Colours.



Made by ASPRO LIMITED
Slough, England



A QUICK-SELLING NOVELTY

The Iodine "Pen" is contained in a neat, handy, nickel-plated tube suitable for the pocket or handbag. It won't leak or break, and can be carried as easily as a fountain pen.

12 Tubes in an attractive display Counter Box.

1 doz. tubes 8/-.

3 doz. tubes 7/6 per doz., post free.

RETAILS AT 1/- P.A.T.A.

CLAY & ABRAHAM, Ltd., Manufacturing Chemists, LIVERPOOL

EDWARDS BROS., VALE ROAD, LONDON, N.4. DUNCAN, FLOCKHART & CO., HOLYROOD ROAD, EDINBURGH

T. & H. SMITH, LTD., 32-34 VIRGINIA STREET, GLASGOW. OR USUAL WHOLESALER.

Sole Export Agents: WM. ALFRED JONES LTD., WEST INDIA HOUSE, LIVERPOOL.



IODINE "PEN"

BRAND
REGISTERED TRADE MARK.
Guaranteed to contain
B.P. Tincture of Iodine

BEWARE OF
IMITATIONS



REGD TRADE MARK



SALE or RETURN

A SPECIAL OFFER
TO CHEMISTS ONLY

If you have not previously stocked "Menthells"—here is a special introductory offer for you:
3 doz. tins carriage paid on sale or return. You pay for what you have sold at the end of May.
Try this offer—display on your counter in the attractive outer and see how soon they sell.

MENTHELLS

have a national reputation—constantly increasing sales during the last 25 years prove their merit. Retail 4½d. Cost 2/9 dozen. A bonus of 1 dozen on all orders for gross lots.
Send a p.c. now to

BLYTON, ASTLEY & CO., Ltd.
Eagle Laboratories, Lower Broughton, Manchester

A remarkable new BROMIDE and YEAST product

Here is a Bromide and Vegetable Yeast preparation entirely new to this country, which has an appetising taste and a high proportion of Yeast Vitamins. It is an excellent sedative in all cases of neurasthenia, nervous sleeplessness, neuralgia, physical excitement, etc., etc.
The price is 3/9 a bottle, containing 5 oz. Obtainable through all Wholesalers.

LIBERAL DISCOUNTS.

Full details from Sole Concessionaires for the United Kingdom and the Dominions:

COATES AND COOPER,
41 Great Tower St., London, E.C.3



БРОСЕДАН

BRAND

BROMIDE BOUILLON

Manufactured by The Temmler Chemical Works, Berlin

MONSOL

PASTILLES

BRAND



NEW USES FOR PASTILLES MEAN MORE SALES

Monsol Pastilles are sold on a much broader basis than a "sore throat remedy." The advertising is educating the public to use them as a hygienic measure, and their convenience appeals to people who would not be bothered by gargling, etc.

This is NEW BUSINESS—not substituted sales diverted from one line to another, but quite definitely additional turnover.

Monsol Pastilles are therefore, for this reason alone, worthy of your support in every practical way. You will support them no less, we are sure, because they are remarkably efficacious, and representative of the best type of pharmaceutical preparations, selling at a good price, and yielding a good profit.

The time for a profitable display is NOW
Write for special terms to:—

MONSOL DISTRIBUTING AGENCY

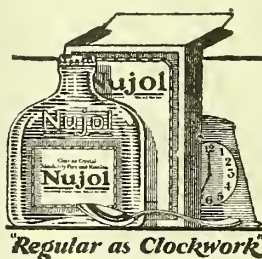
168/172, DRUMMOND STREET, LONDON, N.W.1.

Nujol profits are "regular as clockwork"

Chemists who display and recommend Nujol find it one of their most profitable lines for these reasons:

- 1 NUJOL is attractively packaged. Its appearance helps sell it.
- 2 NUJOL is ready for display the moment it is unpacked. Time, expense and overhead saved.
- 3 NUJOL has been widely advertised for years. People know about Nujol and ask for it.
- 4 NUJOL is effective. It is refined to closest tolerances. Its superior quality is irrefutable and generally known. The chemist who pushes Nujol not only increases profits but prestige.
- 5 NUJOL is fairly priced and offers a generous margin. Push NUJOL and prove these facts.

Send immediately for particulars of special bonus offers for window display!



PRICES:

2/- size, 16/10 per dozen; 3/- size, 25/2 per dozen; 100 oz. Hospital size 117/6 per dozen.

Nujol

REGISTERED TRADE MARK.

NUJOL Department:

128, Albert St., Camden Town, London, N.W. 1

Telephone:

HAMPSTEAD 8066

Telegrams

Nufinjol—Norwest—London

ONE OF THE BEST LINES THE
PHARMACIST CAN HANDLE.

Vapo-Resolene

Est. 1879

The vapourised antiseptic remedy
for all bronchial troubles.

Well advertised,

nearly 50 years proved success,
an everyday seller, and

BIG PROFITS.

These are some of the reasons why
IT PAYS TO STOCK AND SELL

Vapo-Resolene

Allen & Hanburys, Ltd., Lombard St., London, E.C.3 2.



Blackwell, Hayes & Co. LIMITED

For 50 YEARS

Specialists in

FLAVOURS

*Fruit Essences and
Harmless Colours*

Bulk or Packed

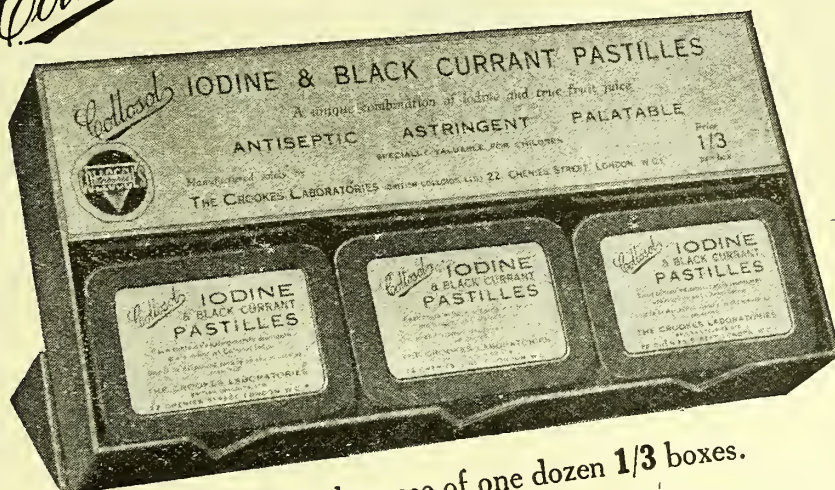
ALL PRODUCTS GUARANTEED TO
CONFORM TO THE FOOD & DRUGS ACT

MOOR STREET & ALBERT STREET
BIRMINGHAM

Phone: Central 1267.

Wires: "Blacwelaze, B'ham."

A NEW PREPARATION

Collosool IODINE & BLACK CURRANT PASTILLES

An item for
personal
recommendation.

Unique in
Character.

Extremely
Palatable.

A counter display case of one dozen $\frac{1}{3}$ boxes.

For Special Terms apply to :

THE CROOKES LABORATORIES
(British Colloids, Ltd.)
22 CHENIES ST., LONDON, W.C.1

Make it easier for Women to buy their Lysolats



The new "take this tin" Showcard tells the Lysolats story at a glance and invites women to take the tin and put down their $\frac{1}{3}$ without the trouble of asking for it over the counter. Wherever this beautiful "Showcard Stand" has been displayed it has speeded up the sale of Lysolats. There are still a few chemists who have not yet received this Showcard. They are invited to write immediately for specimens and for details of

GENEROUS BONUSSES TO THE TRADE.

Lysolats
(LYSOL TABLETS)

PATENT 118667

The safe form of lysol

SOLIDOL CHEMICAL, LTD.
Ashmead House, Disney St., London, S.E.1

ORDER NOW
FOR WINTER
TRADE.



MASON'S Ginger Wine Essence

QUICK
SALES

GOOD
PROFIT

Liberal Window Show Allowance
Artistic Display Material

SEND FOR PRICES.

NEWBALL & MASON, LTD. NOTTINGHAM



Saint-Raphael

**Tonic, Restorative,
Digestive Wine.**

Known throughout the World,
and prescribed in all cases of
**ANÆMIA, DEBILITY, and
CONVALESCENCE**, to Young
Women, Children and the Aged.

DOSE: One wine-glass after the
two principal meals.

Recommended by—
PROF. BOUCHARDAT, Professor of
Hygiene, Paris Faculty of Medicine.
DR. MACNAUGHTON JONES, London,
England.

"For more than thirty years St. Raphaël Wine has been
exclusively prescribed, with success, in the Paris hospitals
as a pure tonic, by eminent physicians, such as Magendie
Ros on Chomel, Velpeau, Requin, Monneret, Troussseau,
Grisolle, Laënnec, &c."—*Union Médicale*, May 8 and
June 12, 1873.

"The 'Vin de St. Raphaël' is often used for ladies
nursing their own children; it is preferable to stout, which
creates an unhealthy fat."—*The Lancet*, London, England.

"St. Raphaël Wine is most precious in all cases where
it is necessary to give tone to the system, without effort
or shock."—DR. C. DES BARRES.

Cie du VIN SAINT RAPHAEL, Valence, Drome,
FRANCE.

**To be obtained from all
Wholesale Druggists.**

ESTABLISHED 1793.

The Best and
Safest Infants'
Medicine of
over 130 years'
standing.

**ATKINSON & BARKER'S
INFANTS' PRESERVATIVE**

Does not
contain
any
Scheduled
Poison.

ROBERT BARKER & SON, LTD., 13 WESLEY STREET, C. on M., MANCHESTER

Season—1929



Agent for Scotland:
ANDREW STEVEN,
7 York Street, Glasgow.

COD LIVER OIL

GUARANTEED GENUINE. FINEST PURE LOFOTEN.

Manufacturers:

BRÖDR. AARSÆTHER A/S, Aalesund, Norway.

LARGEST MANUFACTURERS OF COD LIVER OIL IN NORWAY.

SPECIALITY—Cattle and Poultry Feeding Oils.

Stocks always held in London.

In 25-gallon tin-lined barrels.


SOLE AGENTS
FOR U.K.:

FREUDENTHEIL, SMITH & CO.

Tel. Add.: "FREUDENRUF." 21 Mincing Lane, LONDON, E.C.3. Tel.: ROYAL 6600.

Codes used: A B C, 4th and 5th Edit., Bentley's, and Private.

Guaranteed Pure and Free from Preservatives



A perfect blend of Malt Extract made from selected Barley Malt only and the finest Norwegian Cod Liver Oil.

“EDME”

Malt Extract with Cod Liver Oil

AS USED IN THE LEADING HOSPITALS.

Customer's own name and address printed on label.

Write for Samples and Trade Terms to:

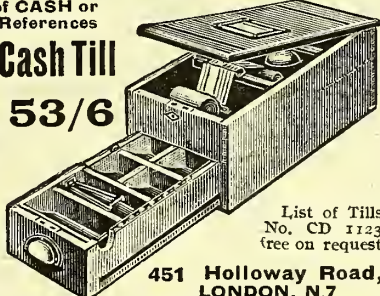
EDME Ltd., 122 Regent St., LONDON, W.1. Telephone: REGENT 6719.
Telegrams: "EDME, PICCY, LONDON."

SENT ON 14 DAYS APPROVAL

Upon RECEIPT of CASH or Two Wholesale References

'The Argyle' Cash Till

Size $17\frac{1}{2} \times 9\frac{1}{2} \times 7$, as illustrated. Solid mahogany, highly polished. Lock to lid and drawer. Check action, warning bell and secret catch. Coils $3\frac{1}{2}$ ins. wide, 4/- doz. Buy direct from the manufacturers. Guaranteed for 5 years.



53/6

List of Tills
No. CD 1123
free on request

451 Holloway Road,
LONDON, N.7

DUDLEY & CO. Ltd. City Showrooms: 65/66 Fore St., E.C.2

REGISTERS.

Dangerous Drugs Act.

Morphine, Diamorphine (Heroin), Cocaine, Ecgonine, Medicinal Opium, Indian Hemp, Dihydro-Oxycodine and Dihydrocodeinone Register, 48 pages, 4/-

Ditto, for Doctors' use, 48 pages, 4/-

Raw Opium Register, 16 pages, 3/-

Morphine Register, 48 pages, 3/-

Cocaine Register, 48 pages, 3/-

Medicinal Opium Register, 48 pages, 3/-

Larger size for Wholesale Trade. Prices on application.

Spirit.

For records of Spirit used in manufacture, to claim rebate. 48 pages, 3/-

Methylated Spirit.

For Records of Purchases and Sales of Methylated Spirit in accordance with Order which came into operation February 1st, 1926. 42 pages, Ruled, with Printed Headings, 3/-

All these are 8 x 5, oblong, and Quarter-bound.

JAMES TOWNSEND & SONS,
CHEMISTS' PRINTERS, EXETER.
LONDON OFFICE: 54, FARRINGTON ST., E.C.4

RIDGE'S FOOD

for Infants, and Adults of all ages.

WELL ADVERTISED to the GENERAL PUBLIC.

SAMPLES, ADVERTISING MATTER and SPECIAL
DISPLAY TERMS ON APPLICATION TO:

ROYAL FOOD MILLS, LONDON, N.16

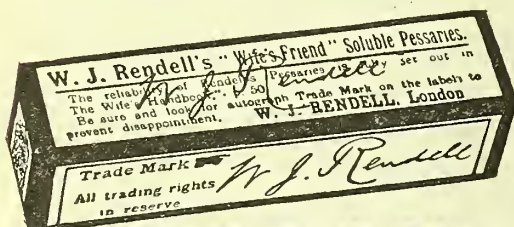
RENDELLISMS

5



Tried and Trusted

New users of Rendell's are regularly being made as a result of the confident recommendation given them by old users. Fifty years of success has made the position of Rendell's unshakeable by substitutes.



RENDELL'S SOLUBLE QUININE PESSARIES

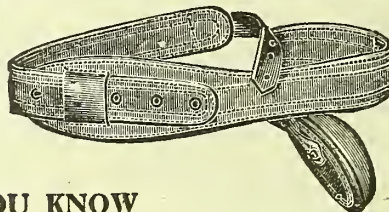
Dignified display matter and interesting literature supplied free on application. Chemists everywhere find them unrivalled for making new customers—permanent, profitable ones. You can get Rendell's from your wholesaler to retail at 2/6 (P.A.T.A.) per box. Remember the public will not accept substitutes.

W. J. RENDELL LTD.
15, CHADWELL STREET, LONDON, E.C.1.

The "Hernicura" "COMFORTABLE"

Reg. No. 627925.

Patent No. 23241.



YOU KNOW

how often you have trouble in fitting customers with trusses, and how frequently dissatisfaction is expressed.

TRY

the "Hernicura" Trusses. They are easy to fit, possess great adaptability, give absolute satisfaction, and yet are most reasonable in price.

A 33-inch Truss will adjust from 30 to 36 inches. Head is also adjustable.

Write for Price List.

Specimens on approval.

MORGAN-DAVIS & SONS LTD.

Truss and Surgical Appliance Makers

276-278 BISHOPSGATE, E.C.2.

Phone:
Bishopsgate 2417.

Always
keep a display
of

NORVIC

BLUE CARTON
CRÊPE BANDAGES

Cost	2"	2 1/2"	3"	3 1/2"	4"
Sell	12/-	15/3	18/3	21/3	24/3
	1/6	1/11	2/3	2/8	3/-

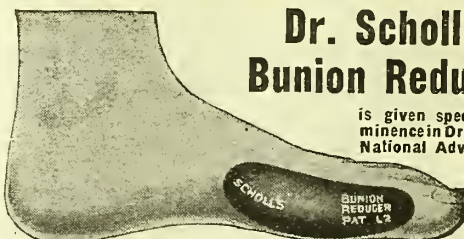
You will
find it pays!

Stocked by all the leading wholesalers



Dr. Scholl's Bunion Reducer

is given special prominence in Dr. Scholl's National Advertising.



Sales of this popular line continue to soar. A window display will attract the demand for you. Thousands are daily obtaining relief from and correction of their bunion troubles by its use. Made of pure Para rubber. Men's and women's sizes. Rights and Lefts. Retail price 2s. 6d. each.

Write to-day for full particulars.

The Scholl Mfg. Co., Ltd., 188/194 St. John St., London, E.C.1.

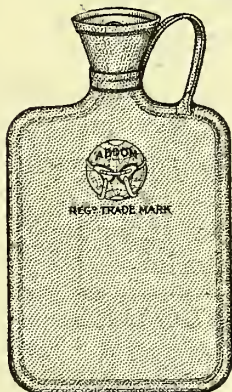
THE R. H. HEWARD COMPANY

SURGICAL APPLIANCES MANUFACTURERS

HOT WATER BOTTLE COVERS

SEASON 1930

Plain Fleecies. Striped Fleecies. Plushette. Velours.

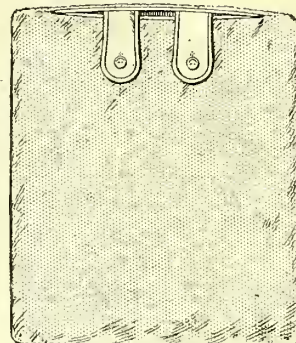


We have ready for immediate delivery 16 different sizes of Hot Water Bottle Covers, of light shades, of the above materials.

Prices from
6/9 to 10/9 per dozen.

Special Prices for large quantities.

Sample sent on application.



CROWN ROAD WORKS - - EAST TWICKENHAM, ENGLAND.

Telegrams: "Beltruss, Twickenham."

Telephone: Popesgrove 2094.

REGISTERED

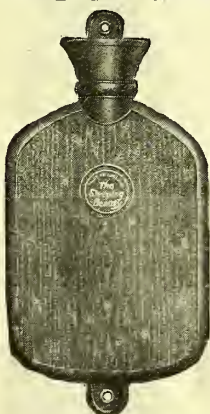
Reliance

TRADE MARK

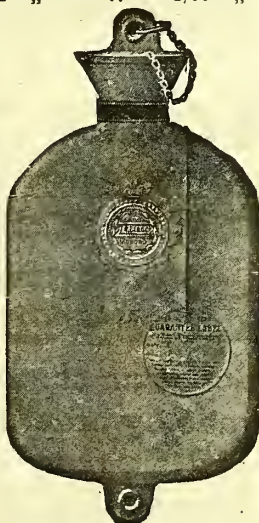
British Seamless Moulded

HOT WATER BOTTLES

"RELIANCE STANDARD"
3 quart .. 4/11 retail
2 " .. 3/11 "



WRITE
FOR
SAMPLES
AND
LIST



The famous

"SLEEPING BEAUTY"

COMPETITIVE LINE

sustains your profit
against price cutters.

Reliance Rubberware Ltd.

Factories - Formosa Street and Amberley Road, Paddington, W.9
Telephone: Padd. 6886. Telegrams: "Rubberware," London.

Best sellers
The public is asking
for **ZEAL**

**CLINICAL
THERMOMETERS**
because they are:-
**GUARANTEED TO
STAY ACCURATE
CONSISTENTLY
ADVERTISED**

Made by

ZEAL

- the name the
public knows.

G. H. ZEAL, LTD.,
75 & 77, St. John St., London, E.C.1.



SOLPORT'S HOT WATER BOTTLE COVERS

We are still very busily making Covers for this season, and are organised for a very large output. Our Covers are well known throughout the trade for quality and finish, and we make every kind of Cover to suit every kind of bottle.

OUR SPECIALITY AGAIN FOR THE SEASON IS THE "H14a" VELOURS COVER

Covers in this beautiful fabric in delightful shades are easy favourites, and the prices are advantageously low.

—SPECIFY "H14a" VELOURS—NONE OTHER SO DAINY—

Don't forget all our Covers are British Made in our own hygienic factories from British Material

REMEMBER THE NAME—"H14a" VELOURS

"EITHERWAY"
COVERS

SOLPORT
BROTHERS LIMITED

"DREAMLAND"
COVERS

184-192 GOSWELL ROAD, LONDON, E.C.1

If unobtainable from your usual Wholesaler, write to us direct.

GARDINER'S OVERALLS

For CHEMISTS & DRUGGISTS

SEND FOR NEW ILLUSTRATED LIST.

Jackets and Coats of very superior quality, made from the most reliable materials, smartly cut and thoroughly well finished in every detail.

WHITE DRILL JACKETS ... 6/11, 8/11, 10/6
KHAKI DRILL COATS 6/11, 8/6, 10/6, 12/6, 14/6
WHITE DRILL COATS 7/6, 9/6, 12/6, 13/6, 15/6
BLACK DRILL COATS ... 15/6
UNBLEACHED COATS ... 8/6

STOCK SIZES: 34 to 44 chest measure over waistcoat. Special pockets and little adjustments can be made without extra charge. POSTAGE on single coat 9d., but 20/- orders upwards carriage paid. SPECIAL PRICES FOR LARGE QUANTITIES.

GARDINER

& CO. (The Scotch House), LTD.

1, 3, 5 Commercial Road, LONDON, E.1

Telephone: Bishopsgate 6751.

Established 1839.

BRANCHES:

Deptford, Edgware Road, Woolwich,
Clapham Junction and Knightsbridge.

In the last
5 years
the sales of



TOWN TALK

LIQUID SILVER POLISH

& SILVER PLATE CLOTH

have increased
3 Fold

Get your share of the
trade by ordering from

JAMES WOOLLEY, SONS & CO., Ltd.,
Manchester

AYRTON, SAUNDERS & Co., Ltd., Liverpool
BROOKS & WARBURTON (American Drug
Supply Co.), Ltd.

Town Talk Polish Co.

Whitby St., Bradford Road, Manchester





J. PILLISCHER, Ltd.
88 New Bond St., W.1
The "International" Microscope
IMPROVED MODEL
2 Eye Pieces. $\frac{3}{4}$ & $\frac{1}{2}$ Object Glass
Magnifying Power 50 to 420 diams.
In case with lock and key.
Sent free to any part of
the World on remittance of
£14 : 6 : 0

The Lancet says:
"We can conscientiously recommend it to all who really want a useful instrument."

Enquiries invited for all other kinds of Microscopes, Optical and other scientific instruments.

15 GOLD MEDALS
16 GRAND PRIX

PERKEN, SON & CO., LTD.

Established 1852.

Contractors to H.M. Government.

THE
"MATER"
CLINICAL
REGD.




ALL
TYPES
OF
CLINICAL
AND OTHER
THERMOMETERS

Price List on Application.

94 HATTON GARDEN,
LONDON, E.C.1

Telephone : 0724 Holborn.
Telegrams : "Optimus, Smith, London."



Advertising Balloons

A VERY EFFECTIVE FORM OF ADVT. SPECIAL DESIGNS SUBMITTED.

SQUEAKERS, DYING BOARDS, SWANS, BIRDS, ELEPHANTS, &c.

WHOLESALE & EXPORT ENQUIRIES INVITED.
WE ARE ACTUAL MANUFACTURERS

JOSEPH HARRIS & COMPANY
RUBBER WORKS, BROADHEATH, ALTRINCHAM.

J. H. HAYWOOD, Ltd.

Surgical Appliance Manufacturers,
Castle Gate, NOTTINGHAM
Telephone: 40488 NOTTINGHAM.

Established 1833



SPECIALITIES FOR WINTER.

ELASTIC HOSIERY (Seamed and Seamless), TRUSSES (Spring and Elastic), SUSPENSORY BANDAGES, BRACES, LADIES' AND GENT'S ABDOMINAL BELTS for support and warmth, made in felt, flannel and fleecy.

CHEST PROTECTORS, SLEEPING SOCKS, INDIA-RUBBER AND AIR-PROOF GOODS, NURSING REQUISITES, DRUGGISTS' SUNDRIES, &c.



PRICES ON APPLICATION



**ROBINSON'S of
CHESTERFIELD**
for
**CARDBOARD
BOXES**
ROUND • OVAL • SQUARE • FOLDING
ROBINSON & SONS LTD.
CHESTERFIELD & LONDON




SALES-MAKING CARTONS

Goods well packed are half sold, and easier selling means more sales. Your own preparations attractively packed will sell considerably better.

Send for samples and prices.

ROBINSON & SONS, Ltd.
Manufacturers of ROUND, OVAL, SQUARE AND FOLDING
CARDBOARD BOXES,
CHESTERFIELD

PURE RUSSIAN
LIQUID PARAFFIN MEDICINAL B.P.
ALL GRAVITIES. HIGHEST VISCOSITY.

PURE RUSSIAN
"JASMINE" BRAND WHITE OILS
CHEMICALLY PURE. WATER WHITE. ODOURLESS.
FOR MANUFACTURING PURPOSES.

Competitive Prices. Best Quality. Immediate Delivery.

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.
80 BISHOPSGATE, LONDON, E.C.2
Telephone: LONDON WALL 7132-7133. Telegrams: "INVATORE, STOCK."

LIQUID

Sterns B.P.

is guaranteed to be the finest quality of Liquid Paraffin produced. It has the patronage of the largest wholesalers, the recommendation of the Medical profession, and is used in the principal Hospitals in preference to all other kinds.

STERN'S

LTD.,
60 Royal London House,
Finsbury Square,
E.C.2.

PARAFFIN

**Obtain your
supplies of**

**COTTON
OIL**

B.P.C.

from

FRANCIS F. FOX & CO., LTD.
BRISTOL and BIRMINGHAM

**ARMSTRONG'S
STANDARD
TAPERS**



EVERY Armstrong Cork is properly graded under a definite name.

Consistency, in quality and dimensions, enables you to obtain identical supplies at all times.

Armstrong Corks are guaranteed by a firm with a 66 years' reputation to maintain.

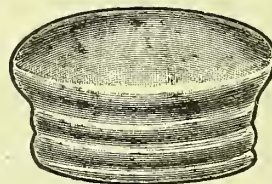
The Armstrong Grades are:—

GOLD LEAF BRAND
SILVER LEAF BRAND
BLUE LEAF BRAND
GREEN LEAF BRAND
and N. H. I. BRAND

*Write now for samples
and quotations.*

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THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C.4

JANUARY 18, 1930

This Supplement is inserted in every copy of The Chemist & Druggist.

THE CHEMIST AND DRUGGIST SUPPLEMENT

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1.—NORTH LONDON.—Good-class Family Retail Business, with Kodak Agency; established many years; returns approach £3,000 per annum, with net profit about £800; handsomely-fitted shop; well stocked; good living accommodation; long lease; moderate rent; valuation terms entertained.

2.—SURREY.—General Retail Business, with N.H.I. Dispensing and Kodak Agency; old established; turnover about £2,000; double-fronted shop in main road; estimated value of stock and fittings about £1,000; good living accommodation; 19 years' lease; price to be arranged.

3.—BALING (Near).—Cash Retail Business; returns, under management, £2,100 per annum; scope for increase; shop well fitted in mahogany and fully stocked; rent £90; sub-let £52; price £1,600, or near offer.

4.—WESTERN SUBURB.—General Retail and Dispensing Business; established many years; returns last year £3,600; corner shop, well fitted and stocked; living accommodation; held on lease; rent £60; sub-let £7 10s.; price £2,800.

5.—LONDON, N.W.—High-class Retail Business, with Kodak Agency; returns last year approached £2,200, with net profit £540; single-fronted shop; rent £165 per annum inclusive; held on lease; price £1,000.

6.—WEST-END.—Old-established Retail Business with very little Dispensing; returns £5,000 per annum, with scope for very much increased trading; handsomely-fitted shop; very long lease; extensive premises; valuation terms entertained.

7.—KENT.—General Retail and Dispensing Business, with Kodak Agency; returns £3,800 per annum (£800 from Optical); double-fronted corner shop, fitted in mahogany; rent £80 per annum; private house available if required; price asked for business £3,000.

8.—MIDDLESEX.—General Retail and Dispensing Business, with small Optical connection; returns £4,300 per annum; this includes the takings from a small branch; long lease; moderate

rental; stock and fixtures estimated at £1,700; price to include freehold of branch £4,500.

9.—HOME COUNTY (Market Town).—High-class Retail and Dispensing Business, with Kodak Agency; returns about £4,000 per annum; gross profit about 40 per cent.; single-fronted shop, fitted in mahogany and well stocked; very good house; bathroom; garden; freehold may be purchased or lease will be granted; price of business £3,500; stock and fixtures estimated to be worth £2,500.

10.—HERTS.—General Retail and Dispensing Business, with Wine Licence; returns last year approached £2,600; double-fronted shop, well fitted and heavily stocked; lock-up pharmacy; rent £120 per annum; new lease; terms, valuation of stock and fixtures, plus an agreed sum for goodwill.

11.—NORTH WALES.—Retail and Dispensing Business, with Kodak Agency; main street position; returns last year £2,622, with net profit about £700; scope for large increase; single-fronted shop; stock and fixtures estimated to be worth £1,400; rent £75, or property may be purchased; price £2,000.

12.—SOUTH WALES.—Old-established Business, Retail, Dispensing and Optical; since the death of the proprietor the returns have fallen; scope for increase under personal supervision; double-fronted shop, well fitted in mahogany; large house; private entrance; our client is desirous of selling quickly and will meet a purchaser reasonably.

13.—SOUTH COAST (Good-class Health Resort).—General Retail Business, with Kodak Agency; returns £3,000, increasing; gross profit 50 per cent.; large double-fronted lock-up shop, fitted in oak and well stocked; 18 years' lease unexpired; further details on application.

14.—BOURNEMOUTH.—General Retail and Dispensing Business, with Kodak Agency; returns have been £60 weekly, but owing to ill-health have fallen considerably; handsomely-fitted double-fronted shop; good working stock; 14 years' lease; in order to effect an immediate sale valuation of stock and fixtures only will be accepted; about £700.

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- 2.—DORSET COAST.—Light Retail Dispensing with Kodak Agency; returns about £1,900; good position; modern pharmacy and house; price £1,100; freehold can be purchased.
- 3.—MIDDLESEX (12 miles out).—Good-class Retail and Dispensing, in good residential district; unopposed; returns £2,200; gross profits 40 per cent.; modern pharmacy; fully stocked; plenty of scope; price £1,750.
- 4.—HANTS COAST.—Good-class Retail and Dispensing Business, in main road position; returns about £1,400, increasing; modern fitted shop; well stocked; price about £1,000.
- 5.—NORFOLK.—Old-established Retail, with Wines and Spirits, in prosperous market town; best position; returns £2,900; net profit £618; books audited; price £1,650.
- 6.—ESSEX (Health Resort).—Good unopposed Chemist's Business, returning last year £1,156; net profit over £300; no N.H.I.; own property; lease granted; good house with large garden and garage; owner retiring; price £700.
- 7.—NORTH LONDON (few miles out).—Good-class Retail and Dispensing, in fine position; net profit last year £875; splendid house and shop; long lease; excellent stock; price £2,800, or valuation terms arranged; strongly recommended.
- 8.—LONDON, N.W.—Light Cash Retail, with Kodak and Rexall Agencies; returns last year £2,186; lock-up shop; good stock; long lease; price for quick sale £950 cash.
- 9.—LONDON, S.W.—Good-class Cash Retail, in main road position; present returns £25 weekly; plenty of scope; good house attached; well fitted and stocked; price £900, or valuation.
- 10.—LONDON, S.E.—Old-established light suburban Retail, in good position; returns £1,265; net profit nearly £400; audited books; good house; well stocked; price £800, or offer.
- 11.—LONDON (Essex Suburb).—Cash Drug Stores, in thickly-populated district; returns £850; can be much increased in qualified hands; low rent; house attached; price £550, or offer.

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Pharmacists desirous of retirement or change will do well to communicate, as also will Pharmacists who require to purchase a new business.

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BUSINESSES FOR DISPOSAL

- 1.—BLACKPOOL.—Recently established Chemist's Business, large shop, corner position in main street, on lease at £90 p.a.; returns average £40 p.a.; ill-health reason for disposal. Further particulars on application. (24)
- 2.—FOLKESTONE.—Newly-opened Dispensing and Retail Business in main shopping road on lease; 20½ years to run at nominal rental; double-fronted large shop; returns last 4½ months, £773; vendor ordered abroad; quick sale desired. Further particulars on application. (23)
- 3.—BRIXTON.—For immediate disposal, Light Retail Dispensing Business, with Kodak Agency and scope for Optics; situate in main road; lock-up shop; on lease, with nine years to run, at £80 per annum; beautifully fitted and good stock carried. Further particulars on application. (13)
- 4.—SUFFOLK.—Seaside resort. Old-established Family, Dispensing and Retail Business, on lease at £100 p.a.; good living accommodation; private entrance; £1,000 all at, or £350, plus stock and fixtures at valuation. (21)
- 5.—BLACKPOOL (North Shore).—Occupying commanding position in this popular seaside resort, there is for immediate disposal a Retail Dispensing and Photographic Business, with Kodak Agency; large D. & P. connection; 5 years' lease at £95 per annum; returns at present, which could be considerably increased, £1,200; net profit £420; price for quick sale £250, plus stock and fixtures at valuation. (20)
- 6.—LONDON, N.—Good-class Retail Business in main road; on lease £60 per annum; returns £1,200; lock-up shop; £650, plus stock at valuation, or offers all at entertained.

Stocktaking and Valuation of Businesses undertaken at moderate inclusive fee. Chemists are invited to consult us in respect of their requirements in connection with sale or purchase of businesses. Chemists in the North are requested to communicate with our Liverpool Offices.

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SOUTH WALES.—Wanted, on deferred payment system, a Chemist's Business or Drug Store. Particulars (in strict confidence) to 265/34, Office of this Paper.

BUSINESS required in or near London; good Dispensing and Family trade; net profits £400 per annum, or over. Full particulars (in strict confidence) to 162/739, Office of this Paper.

BUSINESS wanted; South or South-West England; turnover around £2,000 per annum, with scope for increase; full particulars in strict confidence; spot cash available. 269/8, Office of this Paper.

WANTED, in East London, a Business returning between £3,000 and £4,000 per annum; reasonable rental and living accommodation required; cash purchaser waiting. Apply Orridge & Co., 56 Ludgate Hill, E.C.4.

£10 OFFERED for information (if actually acted upon) where there is an opening for qualified within 40 miles London. 269/12, Office of this Paper.

BUSINESSES FOR DISPOSAL.

ESSEX COAST.—Seaside and health resort; unopposed; owner retiring through age and ill health; returns about £1,200; no N.H.I.; Kodak Agency; splendid freehold house and shop; extensive garden; garage; price, goodwill £300, freehold £850; stock and fixtures worth £300. Apply Craske, Sons & Scott, 12 High Street, Colchester.

ESSEX COUNTRY TOWN.—Pharmacy, with unopposed Optics, recently opened, taking £20 per week average, without Photography or Insurance; gross profit high; large house; good comprehensive stock and optical equipment; rent and rates £120; long lease; a genuine proposition; price £1,000. 265/26, Office of this Paper.

HOME COUNTY.—Chemist's Business for Sale, 12 miles from City; good living accommodation; very low rent; N.H.I., Light Retail and Photographic; returns average £750 per annum at good profits; good stock and fixtures; price £500, or reasonable offer considered. Full particulars to bona-fide purchasers. "Spes," 265/24, Office of this Paper.

HERNE BAY.—Established two years; quickly growing Business; residential district; rapidly developing neighbourhood; Kodak; long lease; low rent; well stocked; first-class fixtures; turnover £1,100; price £700. 267/35, Office of this Paper.

KENT (Near London).—For immediate disposal, well-fitted and stocked Pharmacy; good lease; top portion let off, making rent very low; returns £1,250 under manager; Kodak Agency; has been much neglected; accountant's figures available; will accept £500 for fixtures, stock and goodwill. 267/33, Office of this Paper.

LIVERPOOL DISTRICT.—Old-established Chemist's Business on main road; property, fixtures, etc., £1,500; arrange leave £750 on mortgage; stock at valuation; turnover £30 per week. Apply Guild, Appleton & Co., Chartered Accountants, 15 Stanley Street, Liverpool.

LIVERPOOL.—Chemist's Business; lock-up; main road; splendid opening N.H.I.; Kodak Agency; average takings £20 weekly; established 5 years; price £525. Fahy, 16 Great George Place.

LONDON.—Exceptional opportunity for qualified Optician and Chemist to acquire small Optical Business with enormous scope for increase; small Chemist Department attached doing £25-£28 weekly; splendid living accommodation; price, without optical fixtures, £1,050, all at. 263/4, Office of this Paper.

LONDON, S.W.—General Retail and Dispensing; main road; returns £1,200, increasing, at good prices; N.H.I. 2,500 per annum; lease eight years; good house, at present let off to cover rent and rates; good clean stock; must sell; good reason; first reasonable offer. 269/27, Office of this Paper.

LONDON (10 minutes West-End).—Sound Cash Chemist's Business, with Kodak Agency; compulsory sale due to health; cash returns over £2,000 per annum; excellent stock and N.H.I.; can be improved 100 per cent.; genuine offers asked for immediate disposal; long lease. 268/14, Office of this Paper.

MANCHESTER (near).—Pharmacy for Sale; returns £12-£14 weekly; N.H.I. 120 per month, increasing; at present under management; double-fronted; electric light; good living accommodation; rent £39 per annum (sub-let £38); rates £21; fittings include National Cash Register; price, in all, £275; would suit energetic young man; price includes stock £160. 231/28, Office of this Paper.

MEASHAM (Near Burton-on-Trent).—An old-established Drug Store for Sale; has been qualified; with good house newly decorated; double-fronted shop; no opposition; mining district; Kodak Agency; freehold; will accept £1,800 for quick sale; average takings £23-£25 weekly; genuine; good stock. Kennerley, Measham, Burton-on-Trent.

REDCAR (Yorks).—Old-established business; prominent position; Kodak agency; with or without living accommodation; price £500; stock and fixtures at valuation. Full particulars, 270/1, Office of this Paper.

SOUTH WALES SEAPORT TOWN.—Middle-class Chemist's Business; mahogany fitted throughout; stock optional or at valuation; valid reasons for disposal. 255/13, Office of this Paper.

SUSSEX (large coast town).—Good-class, old-established Light Retail and Dispensing Business in busy shopping centre; returns, under management, £2,200 (increasing); gross profit £900; no agents. Write "Cash," 265/28, Office of this Paper.

YORKS. (MID.).—Healthy Branch; new fittings and stock; £10 weekly under unqualified lady; population, growing, 4,000; good residential district; no opposition; main road; block of six new shops, lock-up; established 12 months; inability to supervise sole reason for disposal; unique opportunity for registered man; rent and rates £1 week; cost of fittings and stock only £325. "X. Y. Z.," 263/3, Office of this Paper.

BEST part Middlesex; unopposed position; Freehold Corner Shop, house and garden; splendid opportunity for progressive man; to be sold in one lot, or leased on favourable terms; serious inquiries only, enclosing references. P.C.B. 22/30, Office of this Paper.

GREAT BARGAIN.—Business, neglected; turnover at present £25, plus N.H.I.; modern bronze windows; expensively-fitted pharmacy; spacious; lock-up; inclusive rental; lease; substantial stock; plenty new property and scope; adjacent to Pearks and Multiples; P.O. attached, salary covers rent; quick sale £950, or offer. "Pharmacist," c/o Woodman, 28 Inchmery Road, Catford, S.E.8.

AN opportunity occurs for an enterprising Pharmacist to acquire an old-established Chemist's Business in a London suburb; double-fronted shop; low rent; returns, under management, average £35 per week; cash price £1,500, or £500 cash and balance as instalments; every investigation given. 268/29, Office of this Paper.

ESTABLISHED 36 Years.—Chemist's, high-class, Harrow, showing net profit of £822 per annum; most attractive shop and excellent living accommodation; vendor will grant 21 years' lease at moderate rent, or sell freehold; audited accounts; price only £900, and stock at valuation (about £700). Woodcock & Son, 20 Conduit Street, W.1.

ELDERLY (68) gentleman, unqualified, offers Shop in comfortable cottage, East Midlands village; established 6 years; gas; good garden; population approximately 2,000; Kodak sub-agent; N.H.I. can be done; two doctors; well stocked and fitted; neglected; health reasons; suit qualified wanting start with small capital; overhead charges low; only those willing to view need apply; best offer secures. 242/5, Office of this Paper.

FIRST-CLASS Retail Business on South-East Coast; returns average £3,000; good net profit; long lease and low rent; owner retiring; references required; no agents. "Veritas," c/o The British Drug Houses, Ltd., London, N.1.

FOR Sale, to close a trust, small Druggist Shop in poor but thickly populated part of Manchester; established 20 years; turnover approximately £1,000 per annum; property valued at £800, including living accommodation; mortgage for full amount can probably be arranged; stock and fixtures £300-£350; good opportunity for young man to work up; offers invited. Apply Hindley, Hamer & Co., 227 Corn Exchange Buildings, Manchester.

FOR Sale, Chemist and Druggist, old-established, near Manchester; large corner premises, suitable for conversion; good living accommodation; room for garage; chance of a life time; stock, fixtures and premises for sale; cheap to a genuine buyer; only those who want a business need apply; no triflers, please. 267/30, Office of this Paper.

NICELY-FITTED Pharmacy; busy main road; stock; fixtures; 21 years' lease, price £500, or nearest offer for quick sale. Apply "F. T.," 451 Caledonian Road, N. 'Phone: North 1542.

£350 BUYS old-established Business in centre of a Yorkshire city; average annual profit £300, which is capable of good increase under energetic young man; low rent and rates; N.H.I. and Kodak Agency; good reason for disposal. 265/9, Office of this Paper.

£550 all at.—London, S.W.; Chemist's Business; main road; lock-up shop; rent £85 inclusive; takings average £1,050, under management; genuine bargain for quick sale; £400 down, balance by instalments accepted. 269/22, Office of this Paper.

PARTNERSHIPS.

CHEMIST, largely stocked, wants M.P.S. to open third shop; share profits; working-class, North London; hard work main asset; £100 also necessary, same to cover initial expenses; I supply chief stock and labour toward fitting; good opportunity for young man with "team spirit." Replies receive strict confidence. 260/36, Office of this Paper.

PARTNER required to manage sound middle-class pharmacy 30 miles from London; must be qualified, with Optical diplomas preferred, and Photographic experience; house available; capital required £600 to £800; exceptional scope for pharmacist of experience and ability. State full particulars in confidence to "Partnership," 263/11, Office of this Paper.

PARTNERSHIP offered keen, young, ambitious gentleman; must be qualified chemist; Optical qualifications an advantage embodying additional interests; salary and share of profits; commanding central premises; large Yorkshire town; capital required £500 to £600. Age, copy references, experience, etc., to 269/37, Office of this Paper.

PHARMACIST desires Partnership; willing to pay small deposit with the option of gradually acquiring the business within the next few years. 265/38, Office of this Paper.

COLLOIDS, SUPER-EMULSIONS.

Manufacturers requiring Colloid Dispersions, either of liquids in liquids, or Colloidal Suspension of insoluble solids, by the new Colloid Mill, are requested to communicate with The Proprietors, Box 1239, L.P.E., 112 St. Martin's Lane, W.C.2.

AGENCIES.

A TRAVELLER for a firm of Manufacturing Chemists, having a valuable connection in the North of England, and now retiring owing to ill-health, is willing to sell his goodwill, with the consent of his firm, to an enterprising man of experience. Replies to 162/745, Office of this Paper.

AGENCY or Distributor, Glasgow; Central, Office, 'phone, Showroom, Store, Surgical, Pharmaceutical or Sundries. "Reliable" 269/35, Office of this Paper.

IMPORTERS of Pharmaceutical Specialities and Proprietary Medicines, established 7 years, with connections in the domestic trade, want offers from a few first-class English or Continental firms desirous of developing their businesses; English and Spanish correspondence; exclusive territory; bankers' references. Isajas G. Lopez & Co., Box 899, Bogota, Colombia, South America.

LONDON (West-End) House, having considerable store room available, invites offers from Manufacturers of advertised lines for the purpose of establishment of Depôts, Selling or Distributing Agencies. Apply 261/1, Office of this Paper.

PHARMACISTS, employing three travellers, with sound connection in Lancashire, now having huge sales drive with own specialities, invite Agencies from reputable Drug, Patent Proprietary Houses on basis of commission and part expenses. "Benaria," 260/35, Office of this Paper.

SOLE AGENCY wanted by F. Mazzalorso, Via Zamboni, 18 Bologna, Italy, having large clientele among Chemists and Wholesale Italian Supplies of Pharmaceutical Products; deposits of any chemical products and English specialities accepted; highest references.

APPOINTMENT.

METROPOLITAN BOROUGH OF ST. MARYLEBONE.

Clerk-Dispenser (Woman)—Maternity and Child Welfare Scheme.

THE Council invite applications for the position of Clerk-Dispenser (woman) in connection with their Maternity and Child Welfare Scheme at a salary of £215 per annum, rising, subject to satisfactory service, by annual increments of £15 to a maximum of £305 per annum. Candidates must be under 40 years of age and possess the Assistant Apothecaries' Hall Certificate for Dispensing, and be competent shorthand writers and typists.

The appointment will be subject to the terms of the St. Marylebone Borough Council (Superannuation) Acts, 1908 to 1929, and to the successful candidate passing the prescribed medical examination and submitting satisfactory proof of age.

Applications, in candidates' own handwriting, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must be forwarded to the Town Clerk, Town Hall, St. Marylebone, W.1, endorsed "Clerk-Dispenser," before the 31st day of January, 1930.

14th January, 1930.

PREMISES FOR SALE.

WESTON-SUPER-MARE.—For Sale, newly-built House and double-fronted Shop in a fast-growing suburb; excellent opening for a Chemist; no opposition; price £940 (or near offer) freehold; ground rent £4 10s. A. Clarke & Sons, "Satterleigh," Milton Road, Weston-super-Mare.

PREMISES TO LET.

CHEMIST'S opportunity in busy N.W. district, 7 miles of London, with population of over twenty thousand on L.C.C. Estate alone; capital main road shop and upper part of 7 rooms to let on lease, £325 per annum; very busy cash market. Apply Leslie Raymond, F.S.I., F.A.I., 24-25 The Mall, Edgware. Edgware 0115 (3 lines).

TO Let, on lease, large Business Premises, main street, Lincoln; reasonable rental. Apply J. Hunter & Sons, Auctioneers, Newland, Lincoln.

SITUATIONS OPEN.

RETAIL (HOME).

BRIGHTON.—Capable, qualified Assistant for good middle-class business; one able to dress an attractive window, use modern sales methods and tact at the counter; up-to-date ideas essential; Optics an advantage; salary £4 per week. State age, height, experience, send references and photo. Loughran, Chemist and Optician, Brighton.

BRIGHTON.—Wanted, at once, Junior Assistant, unqualified, for Light Retail business. State age, experience, and photo if possible, salary required. Leo. Benham, 6a Queen's Road, Brighton.

EASTBOURNE.—Branch Manager for small Family Dispensing business; references must bear thorough investigation and show few changes; good-class, all-round experience essential; permanent, progressive post for man who is prepared to give loyal and satisfactory service. Full details of experience, age, height, salary to "Priory," 21 Hartfield Road, Eastbourne.

HYTHE, KENT.—Qualified Assistant required; preference given to one seeking a permanency; good references essential. State age, experience, salary required, and when disengaged. R. C. Andrews, 35 High Street, Hythe.

LEEDS.—Qualified Manager wanted immediately; energetic; good Salesman and accurate Dispenser; salary and commission. Full particulars (confidential) to 260/39, Office of this Paper.

LONDON, W.2.—Junior qualified Assistant required at once; previous experience in good-class pharmacy essential. Full particulars, age, height, and salary expected to H. F. Stapley, Savory & Moore, Ltd., 45 Craven Road, Lancaster Gate, W.2.

LONDON, E.—Unqualified Assistant required; must be competent Salesman and have knowledge of Photography; age about 24. Apply by letter, with usual particulars, T. H. Wilson, 741 Barking Road, Plaistow, E.

LONDON, N.W.—Unqualified Assistant (male), young, for good-class Dispensing business. Apply, first by letter, state age, height, salary required, experience and references, enclosing photo, to "A. D.," c/o John Tree, Ph.C., 9 Royal Parade, Golders Green, N.W.11.

MANCHESTER.—Qualified Assistant; quick and accurate Dispenser and fully competent in Counter work and Window-dressing. Please apply, stating age, experience, and salary required, to A. Wall, Chemist and Druggist, 221 Chester Road, Manchester.

MANCHESTER.—Unqualified Junior Assistant or Improver (gentleman) required for general Counter work and Dispensing. State salary required, when at liberty, and full particulars to 268/3, Office of this Paper.

SOUTH COAST.—Required shortly, a smart unqualified Junior Assistant; good Window-dresser, and must be able to execute Wireless Repairs. Apply 162/740, Office of this Paper.

YORKSHIRE.—Qualified lady required for private limited company; capable; energetic; must be well up in Counter work; busy middle-class business; plenty of scope. Full particulars, with photo, in first letter. 252/31, Office of this Paper.

"ADVERTISER," 126 Boston Avenue, Southend-on-Sea, would like to thank the numerous applicants for the vacancy advertised by him. The vacancy is filled, but it is not possible to reply to each applicant individually.

ASSISTANT, unqualified; used to quick Retail, N.H.I. and Photographic. State age, height, experience, and salary required. Enclose references in first letter. Rowlands, 2 Hesse Road, Hull.

ASSISTANT, unqualified, for high-class Dispensing business; must have had good Dispensing experience; wanted by February 8. Apply Manager, E. B. Stamp, 29 High Street, Hampstead, N.W.3. Applicants not answered in 4 days declined.

ASSISTANT (male), unqualified, 25-30, wanted first week in February, chiefly for Dispensing Counter; must be experienced and active. State full particulars of previous work and salary required. Chater, Chemists, Watford.

JUNIOR (lady preferred), 19 to 20, for good-class business; must have Dispensing experience; reliable; outdoor. State full particulars, references, and salary required. Dawson, 6 Potters Road, New Barnet.

LADY Assistant required, with good knowledge of Toilet and Perfumery, also general Counter work; not necessarily dispensing; references. Apply personally if possible, or write, enclosing photo, with full particulars, to Cartwrights, 171 Holloway Road, N.7.

LADY Assistant, with Retail Photographic experience, wanted for Liverpool Opticians and Photographic Dealers; knowledge of Typing and Book-keeping an advantage. Full particulars, salary, etc., to 162/742, Office of this Paper.

MANAGER, qualified, wanted immediately for small branch shop. Apply, stating salary required, age and full particulars, to Secretary, City of Bradford Co-operative Society, Ltd., 65 Sunbridge Road, Bradford. Endorse envelope "Chemist."

M.P.S., with experience and qualifications in Optics, connection, lady or gentleman, with view to early succession; small salary; unique opportunity to the right person; must be well recommended and bear strictest investigations; country and sea. 162/731, Office of this Paper.

PART-TIME Assistant wanted, unqualified, two evenings weekly. Apply, personally, Meyrick & Davies, Ltd., 34 James Street, Oxford Street, W.1.

QUALIFIED Manager, age about 35, experienced, required to reorganise high-class but neglected business near London; splendid scope for right man, who must be keen and a tactful Salesman and not afraid of hard work; free living accommodation provided. Apply, with full particulars, 268/2, Office of this Paper.

QUALIFIED male Assistant required at once, chiefly for relief duty at branches. Apply, giving full particulars, 269/17, Office of this Paper.

QUALIFIED Manager required; must be keen with Photography; Optical qualifications preferred; lock-up shop. State salary required. 162/735, Office of this Paper.

QUALIFIED, lady and gentleman, for N.W.1. and W.C.; good all-round experience of Retail trade; must not be afraid of work; for early vacancies. 116 Seymour Street, Euston, N.W.1.

SMART young lady required, unqualified, with general Retail experience, Dispensing, Counter and Photographic; industrial town, 30 miles from London. Full particulars, with photo if possible. 267/12, Office of this Paper.

WANTED, qualified Chemist (male or female), with Optical knowledge preferred, to manage small pharmacy branch. Particulars as to experience, age and wages required not later than Wednesday, January 22, to 162/734, Office of this Paper.

WANTED at once, for East London, Unqualified Assistant (male); quick and accurate Dispenser, good at Counter. Write, giving particulars, age, experience, with references, permanency to suitable applicant, Snowden Kirk Ltd., 6 Chrisp Street, Poplar, London, E.14.

WHOLESALE.

A BIG money chance for a man with the qualifications. The position should be worth £2,000 a year upwards after the first year to the right man. He will need to be a trained Salesman, well educated, and of good appearance, with a knowledge of the Chemistry of Water and, preferably, a connection among Brewers and Dairy-men. If you feel your qualifications fill the bill detail them (in strict confidence) with full particulars as to experience and commencing salary required to 162/733, Office of this Paper.

ASSISTANT required with knowledge of Wet and Dry Chemicals. State age and experience. 162/737, Office of this Paper.

DU BARRY'S FOOD.—Representative required, working on own initiative, for re-introduction of this well-known product now being manufactured in America. 261/2, Office of this Paper.

FULLER LABORATORIES, LTD., have several vacancies for Provincial Representatives, open for an additional line, calling on Chemists and Druggists. Send full particulars of territory covered and present lines (in confidence) to Staff Manager, Fuller Laboratories, Ltd., 1 Crutched Friars, E.C.3.

LADY Dispenser required in Laboratories at Stratford. The vacant position is suitable only for a Junior; M.P.S. qualification unnecessary; ability to compound given formulae essential. Apply, stating age, experience, or alternatively particulars of education, and salary required, to "Dis," 162/736, Office of this Paper.

REPRESENTATIVE required to sell two well-known Proprieties to Retail Chemists; only men with established connections among Retail Chemists in Midlands need apply. Write, giving full particulars as to age, experience and remuneration expected, to 162/738, Office of this Paper.

REPRESENTATIVE, calling regularly on Wholesale Houses, Birmingham and Midland district, required. State full particulars of previous experience, actual ground covered, remuneration, etc. Apply 258/25, Office of this Paper.

REPRESENTATIVE wanted, regularly calling on London Chemists, to handle line already known and introduced; replies should indicate lines already handled. 162/741, Office of this Paper.

SECRETARY required by the newly-formed Wholesale Drug Trade Association; whole-time appointment; a man of good organising ability; age about 35 to 40, with an intimate knowledge of the Drug trade; the position is an important one, and will carry a progressive salary to the right man. Replies, which must give particulars of experience and salary required, and will be treated confidentially, to be sent to Mr. R. A. Beck, Solicitor, 21 Lime Street, London, E.C.3.

WANTED, Travellers in Lancashire, Yorkshire and the North of England, on a commission basis, by well-known firm of old-established Manufacturing Chemists. Write, stating experience and districts proposed, to 162/744, Office of this Paper.

(COLONIAL, INDIAN AND FOREIGN.)

CEYLON.—Optician, with certificates F.S.M.C. or F.B.O.A., single young man, wanted for large Stores in Ceylon to take charge of Optical Department; a knowledge of Photo Goods and Drugs preferred; 4 years' agreement at progressive salary. Write in first instance, stating age, with full particulars of present and previous employment, in confidence, to "Optician," c/o Deacons, Fenchurch Avenue, E.C.3.

SITUATIONS WANTED.

RETAIL (HOME).

A.A.A.A.—CHEMIST-OPTICIAN; qualified; 26; single or double capacity; City or West-End preferred; first-class experience; interview. P.C.B. 22/53, Office of this Paper.

A.A.A.A.—QUALIFIED, 26, abstainer, single, excellent all-round Retail experience, desires engagement, any capacity; not afraid of hard work and can supply excellent references; free January 18. "Pharmacist," 86 Louis Street, Chapeltown Road, Leeds.

A.A.A.—AN unqualified Assistant, 23, seeks situation anywhere; 7 years N.H.I., D. & P., Windows, etc.; free January 25. Reid, 11 Grange Park Road, St. Helens, Lancs.

A.A.A.—QUALIFIED; 25; experienced in all branches; moderate salary to begin; first-class references; disengaged. "W. R. S.," 33 Uttroxteter Road, Longton, Staffs.

A.A.A.—QUALIFIED, 25, capable, energetic and trustworthy, requires position; good all-round experience; excellent references. 126 Goldhurst Terrace, N.W.6.

A.A.—CAPABLE Assistant or Relief; Dispensing, Windows, Counter, Prescribing; experienced; energetic. Harries, 262 South Lambeth Road, S.W.8.

A.A.—QUALIFIED, 26, London and Continental experience, seeks permanency; good-class Dispensing and Counter; London or suburbs. "M.P.S.," 265/37, Office of this Paper.

A.A.—JUNIOR Assistant; 23; good Dispensing and Counter experience; at liberty when required. "Avondhu," 1 Station Road, Southwold, Suffolk.

A.A.—CHEMIST-OPTICIAN (J.C.Q.O.), good Window-dresser and Salesman, Photographic, desires change; would book in advance a season post. 268/8, Office of this Paper.

A COMPETENT and experienced qualified Chemist desires permanency as Manager in good pharmacy, with house preferred; excellent references; middle-age; tall and active; married; interview given. 267/20, Office of this Paper.

A—QUALIFIED; well experienced and reliable; permanency or Locum; disengaged. "Chemist," 415 High Road, Leytonstone, E.11.

A CAPABLE, unqualified Assistant; free; Counter and Dispensing; energetic; trustworthy; age 27. Tuck, 71 Wellesley Road, West Croydon, Surrey.

A CAPABLE, unqualified Assistant, 37, married, seeks permanency. Praft, Melbourne Cottage, Tiverton, N. Devon.

A CAPABLE, qualified Pharmacist; disengaged; experienced all round; good Dispenser; accustomed brisk Panel; Locum (or permanency with or without living accommodation); abstainer. "Pharmacist," 156 Lower Clapton Road, E.5.

A LOCUM; qualified; long experience in all branches; active; excellent references; disengaged now. "S. C. J.," 54 Priory Road, West Hampstead, N.W.6. Phone: Maida Vale 8212.

A POST as Assistant is sought by young man, 24, unqualified; sound training; free shortly; town or country. P.C.B. 23/4, Office of this Paper.

A QUALIFIED Chemist; 27; single; hard worker; experienced Dispenser, Prescriber, Salesman; Retail, Wholesale, Hospital; Locum or permanency; disengaged. 265/5, Office of this Paper.

A QUALIFIED Chemist, 24, London experience, capable, energetic, desires permanency; Assistant; anywhere. "Aspirin," 16 Stockwell Park Road, S.W.9.

A THOROUGHLY competent qualified Manager or Locum, with wide experience; age 45; height six feet; good appearance and address; at liberty. "M.P.S.," 69 Milton Road, Waterloo, Liverpool.

A YOUNG man requires post as unqualified Assistant; thorough knowledge of N.H.I. Dispensing, Photography, Window- and Show-dressing; references supplied; can be engaged immediately. "G. H.," 41 Dall Street, Burnley, Lancs.

A DVERTISER, 21, desires post as unqualified Assistant; Lancashire preferred, but not essential; tall; good appearance; good Salesman, with sound knowledge of Dispensing, Window-dressing and Photography; references supplied. "Chemist," 111 Ravensdale Road, N.16.

A LL-ROUND Assistant; unqualified; manager for last 7 years; excellent credentials. "Kenilworth," Robin Hood Lane, Walderslade, Kent.

A N energetic Junior, in London for college, desires evening employment, with Saturdays if required; 5 years' all-round experience; available at once. "G. H. R.," 6 Wyndham Street, Putney, S.W.15.

A N energetic, qualified man as Manager or Assistant; 10 years' varied experience, town and country; free one month. 270/30, Office of this Paper.

A NYBODY desirous of having the services of a Dispenser (Hall), with knowledge of Hospital and Private Dispensing, will not be disappointed in Miss D. Williams, 25 Cambridge Road, Barking, Essex.

A PPRENTICESHIP wanted, young lady; through Part I; time study Ph.C.; S.E. district. "Dissington," Celtic Avenue, Shortlands, Kent.

A S Junior or Improver; 20; tall; just completed 3 years' apprenticeship; excellent training; desires further experience; part time or permanent. 265/6, Office of this Paper.

A S Locum or permanent; can start immediately; 4 years' qualified experience; 26; tall. White, Moss Bank, St. Helens.

A SSISTANT or Manager; 29; 13 years' good all-round experience, Counter, Dispensing, and Window-dressing; thoroughly capable; unqualified; married. C. Darling, 33 Crowhurst Road, Brixton, S.W.9.

A SSISTANT, unqualified, requires situation in London; Dispensing, Counter, Window-dressing; good references; age 22. 265/16, Office of this Paper.

A SSISTANT (referred Pharmacognosy), 22, disengaged, desires post; Croydon or district. Russell, "Rose Lawn," The Warren, Carshalton Beeches, Surrey.

A SSISTANT; unqualified; married; 38; permanency; good Counter, Dispensing experience. "Phone: Lee Green 1544." Chivers, 15 Sandrock Road, Lewisham.

A SSISTANT, 24, efficient, energetic, courteous and obliging, good appearance and address, excellent experience, Dispensing, Counter, Photography and Window-dressing, desires position, London; unqualified; disengaged. 260/34, Office of this Paper.

A SSISTANT, qualified, seeks post where initiative and hard work appreciated; accurate Dispenser; quick at Counter; age 23; excellent references; disengaged February 8. Moss, 89 Oshaldeston Road, N.16.

A SSISTANT, qualified, 24, desires position; West-End experience. P.C.B. 22/29, Office of this Paper.

A SSISTANT; unqualified; experienced; efficient and energetic worker; any capacity; anywhere; disengaged. "Chemical," 120 Theobald's Road, London, W.C.1.

A SSISTANT; unqualified; all-round experience; permanency preferred; London; can manage. "Statim," 72 Tremadoc Road, Clapham, S.W.4.

A SSISTANT; unqualified; now disengaged; 20 years' all-round London experience; good Salesman and Dispenser (N.H.I. and Private); London preferred. J. Moore, 6 Geneva Road, Brixton, S.W.9.

A SSISTANT, 26, unqualified, seeks post; experienced all branches; energetic and conscientious. Browning, 22 Lawn Avenue, The Heath, Stourbridge.

A SSISTANT (lady) requires post; good all-round experience; Dispensing and Counter; free. Williams, "Sanderoff," Pin Estate, Burnham-on-Sea, Somerset.

A SSISTANT, 22, desires situation immediately; London experience. Morgan, 45a Atherfold Road, Clapham.

A SSISTANT, 24, Scot, qualified, desires situation in London or abroad; 8 years' experience; last 19 months as Dispenser in West-End house; disengaged; interview if required; excellent references. "Pharmacist," 80 Devonshire Road, N.15.

A SSISTANT; 25; disengaged; well recommended. G. Ramdin, 41 Westcroft Square, London, W.6.

A SSISTANT, 24, tall, unqualified, desires situation; West-End Dispensing experience; Counter, Photography; 8 years' experience; free one month. 263/28, Office of this Paper.

A SSISTANT in good-class business; varied experience; unqualified; courteous and methodical. 269/26, Office of this Paper.

B IRMINGHAM or Midland area preferred; engagement desired; thorough all-round experience; Locum work undertaken; well recommended; disengaged. "Drugs," 64 Hunters Road, Birmingham.

B RANCH Manager, London, West preferred; at present managing good-class business; free when suited; excellent West-End experience; tactful Salesman and good Window-dresser; £5 and commission; interview. 263/10, Office of this Paper.

C APABLE, experienced modern Pharmacy; Agricultural, Dispensing, Photographic; Salesman; middle-aged; qualified; average pay. "Chemist," Borrage Green Lane, Ripon, Yorks.

C APABLE, qualified lady, 33, experienced all branches, seeks change; Birmingham district preferred. 11 Crescent Street, Newtown, Montg.

C HEMIST'S Assistant, Salesman, Dispenser, Surgical Dresser, aged 24, seeks post with Chemist or Doctor; town or country. "R. O. P.," 37 Water Lane, Brixton, S.W.2.

C HEMIST strongly recommends qualified Assistant; excellent Dispenser, Counterman, Window-dresser; E. and S.W. London experience. 269/15, Office of this Paper.

D ISENGAGED by arrangement; Pharmacist; male; experienced; full or part-time; Locum or permanency. "Chemist," 98 The Grove, Ealing, W.5.

D ISENGAGED.—Doctor's Dispenser (male). Bradburn, 190 Kenry Street, Tonypandy, Glam.

E XPERIENCED in all branches of pharmacy, including West-End night duty; Assistant requires West-End or high-class Western Suburban position; excellent references. "W.," 103 Spring Grove Crescent, Hounslow.

J UNIOR; aged 21; tall; good appearance; first-class Salesman; for past year mainly Dispensing; Photography, Wines. O. R. Jones, Apothecaries' Hall, Holyhead.

J UNIOR, 22, good appearance, Referred pharmacy, desires post with first-class Dispensing Chemist; good experience and references; free now. J. Bingham, Castle Gate, Newark.

J UNIOR; 22; first-class Dispensing experience, West-End and country. C. Hunter, 7 Redburn Street, S.W.3.

L ADY, qualified 1921, used to high-class Dispensing and Counter work, seeks change; Manageress or Senior. 265/11, Office of this Paper.

L ADY Dispenser (Hall) desires post with Doctor or Chemist; excellent references; Swansea district. 262/36, Office of this Paper.

L ADY Dispenser (qualified) desires change; thoroughly experienced in Dispensing, Minor Dressings, Book-keeping, Typing and general Secretarial work. Apply 263/5, Office of this Paper.

L ADY Dispenser (Hall); experienced; disengaged; Locum or permanent; Lancashire preferred. Miss Rawcliffe, 187 Watling Road, Fulwood, Preston, Lancs.

L ADY Dispenser (Hall) seeks post, whole or part time; Dispensing only; London district. 267/10, Office of this Paper.

L ADY Dispenser (Hall) seeks post, whole or part time; Doctors; London; excellent references; experienced. P.C.B. 22/34, Office of this Paper.

L ADY; unqualified; disengaged; 12 years' experience; energetic; used to quick Counter and Dispensing business. Holmes, 114 Lewisham Road, Lewisham, S.E.13.

L ADY; qualified; 14 years' experience in all branches; excellent references; good Window-dresser; Manchester district preferred, not essential. 267/14, Office of this Paper.

L ADY desires post with Doctor or Chemist; capable Manager, country shop; Agriculture, etc.; country, seaside, near Cornwall, not essential. 267/38, Office of this Paper.

L OCUM, Relief or Assistant; 20 years' good experience heavy Panel; quick Counter; not registered. 130 Scott-Ellis Gardens, N.W.8.

L OCUM or Relief; disengaged; thoroughly competent; town or country; highest references; one or two days a week entertained in London area; terms moderate. "Chemicus," 56 Rudloe Road, Balham, S.W.12.

L ONDON.—Part-time situation wanted; passed Part I; six years' good-class experience. Howell Williams, 12 Carlisle Road, N.W.6.

L ONDON OR SOUTH OF ENGLAND.—Qualified, 22, requires situation; good experience in Counter, Photographic and Window-dressing; references. Palmer, 183 Laburnum Grove, North End, Portsmouth.

LOWESTOFT OR DISTRICT.—Manager, Senior or Locum; lady; 35; qualified 9 years; good address, courteous and obliging; quick and accurate Dispenser; excellent London and provincial experience; free March. 262/40, Office of this Paper.

MANAGER; qualified; disengaged January 18; aged 38 years; excellent references; abstainer. "Pharmacist," 16 Blacklands Road, Catford, S.E.6.

M.P.S., 22, seeks progressive position; excellent Dispensing, Counter and Photographic experience; Derby or Notts district preferred. 265/30, Office of this Paper.

M.P.S., 22, now at liberty, seeks good experience in London area; City or West-End preferred. "S. J. H.," 22 Geldart Road, S.E.15.

M.P.S. requires Managership; accustomed to entire control; large experience in Buying, Window-dressing (prize winner), etc.; excellent references; age 24; London preferred, but not essential. "M.P.S.," 19 Lytham Road, Leicester.

M.P.S., recently obtained S.M.C., desires re-engagement; 23; highest references; abstainer. Sargent, 6 Birchfield Road, Northampton.

M.P.S., tall; 23; good all-round experience; disengaged now. Howells, "Clevelands," King's Avenue, Rhyl.

M.P.S. (lady), 23, desires post, good-class business, Nottingham or district; good Dispenser; Photography; reliable; excellent references. 2 Elm Tree Avenue, West Bridgford, Nottingham.

M.P.S., aged 27, seeks position in or near Halifax; good appearance, address and education; experienced all branches; can wait if necessary. Write (in confidence) 267/21, Office of this Paper.

M.P.S., 23, desires change; highest references; smart appearance; tall; Yorkshire preferred, but not essential. Apply 268/31, Office of this Paper.

PART TIME.—Experienced Assistant; would any Pharmacist share with myself part time; state days or hours. Saunders, Pharmacist, 255 Kingsland Road, E.2.

PART-TIME; day, evening or Sunday; Window-dressing, Stock, Counter, Dispensing; active; middle-aged; excellent references; disengaged; moderate terms. Cox, 150 Plumstead Road, S.E.18.

PHARMACIST, 32, 16 years' experience, desires berth; Manager-Senior; capable in all branches; quick; active; abstainer; good references; free shortly. Morgan, 114 Aldborough Road, Seven Kings, Ilford.

PUBLIC Schoolboy, 18, tall, smart appearance, experienced, passed Metric, requires Apprenticeship; South-East district preferred. 265/14, Office of this Paper.

QUALIFIED, Scot, married, young, seeks responsible and progressive post; at present manager for multiple shop doing nearly £10,000 per annum; keen, energetic; good education and appearance. Fullest particulars, salary, etc., in confidence, 256/24, Office of this Paper.

QUALIFIED, 23, single, desires progressive permanency or Locum; recently West-End. White, Chisleold, Wilts.

QUALIFIED; elderly; very active; disengaged; part or whole time; West End or East End preferred; Locum or Branch; salary moderate. Warrington, 665 Commercial Road, Stepney, E.1.

QUALIFIED Chemist seeks engagement; short or long period; abstainer; good references. "M. W.," 25 Litchfield Road, Sutton, Surrey

QUALIFIED, 32, married, desires post as Manager or Senior; experienced all branches. "G.," Werfa, Henllan, Cards.

QUALIFIED Manager, 36, or Assistant; experienced; Midlands or South, but not essential. Perry, Pond House, Smithy Carr Lane, Brighouse, Yorkshire.

QUALIFIED, young, desires position as Junior; all-round experience in good-class pharmacy; N.H.I.; excellent references; salary, what offers? "G.," The Manse, Fordham, Ely, Cambs.

QUALIFIED, 26, good all-round experience, desires post as Manager or Assistant; London or near; disengaged shortly. "G. F.," 480 London Road, Westcliff-on-Sea.

QUALIFIED, 22, requires situation; Midlands or South; good experience and references; energetic. H. Randall, 4 High Street, Higham Ferrers, Northants.

QUALIFIED, experienced Manager, 37, unmarried, now disengaged, desires temporary or permanent post. "Pharmacist," 25 Mayflower Road, S.W.9.

QUALIFIED Manager, 31, single, accustomed sole charge, Buying, Prescribing, excellent testimonials, requires post, good-class pharmacy or branch. "Chemist," 21 Redford Avenue, Wallington, Surrey.

QUALIFIED seeks permanency; Manchester district; young; energetic; varied experience; Retail or Wholesale. 114 Parris Wood Road North, Withington, Manchester.

QUALIFIED lady, 26, requires responsible or progressive post; excellent varied experience; well recommended; London. 152 Elsley Road, S.W.11.

QUALIFIED lady Manageress, 25, desires post; S.W. or W. London; thoroughly experienced. C/o "Chalk," 219 Streatham Road, Mitcham.

QUALIFIED Manager, or otherwise, open now; experienced; energetic; willing to work; moderate salary. Reply "Chemist," 103 High Street, Blaina.

QUALIFIED Locum or Manager; competent; reliable; over 20 years' experience, mostly West-End; disengaged. "Pharmacist," 81 Camden Road, N.W.1.

QUALIFIED lady, thoroughly experienced Dispensing, Retail and Photographics, desires post in or near London. "Chemist," 44 Adelaide Road, S.E.4.

QUALIFIED young lady requires good experience in Dispensing and Counter work; S.W. district preferable. Apply P.C.B. 23/3, Office of this Paper.

QUALIFIED lady, holding Major Certificate and London Matriculation, seeks post, good-class business; nearly 2 years present post. 267/36, Office of this Paper.

QUALIFIED lady, disengaged, with good Dispensing experience, Counter and Photographic, desires post in or near London. 268/15, Office of this Paper.

QUALIFIED, age 26, as Manager (or Assistant); at present post 2½ years as manager of branch; available any time; requires business with more scope; 10 years' good all-round experience; salary £5 or over per week; references when required. 269/7, Office of this Paper.

QUALIFIED.—Scot, 23, requires appointment; eight years' experience, town and country; anything considered. 269/39, Office of this Paper.

SALESMAN; 23; tall; good appearance; Laboratory and Scientific Apparatus; Showroom experience. Gatehouse, 5 Brettell Street, S.E.17.

SMART, gentlemanly Assistant requires post; first-class Dispenser and Counterman; highest references; disengaged now; anywhere. Maidens, 42 Dixon Street, Lincoln.

SOMERSET or Devon Coast preferred; unqualified Assistant; Public School; experienced; active; energetic; age 25; height 6 ft.; Counter, Dispensing, Photographics; recommended by former employer as honest, sober, reliable; disengaged February 10. Hilton, 8 Barrack Street, Bridport.

UNQUALIFIED; young; good experience, Dispensing and Counter; good references; London only; now free. Phone: Putney 2062. "W.," 99 Bishops Road, Fulham, S.W.6.

UNQUALIFIED, 25, seeks position, Lancashire district; London experience; highest references; married; photo available; disengaged March 1. P.C.B. 22/14, Office of this Paper.

UNQUALIFIED Assistant; 21; Edinburgh experience; excellent references; disengaged; good Dispenser; tall and good appearance. J. Warnock, Milford, Co. Donegal.

UNQUALIFIED; worker; any capacity; Dispensing, Counter, Windows, N.H.I., clerical; experienced; anywhere. "Chemicus," 7 Regent Place, Westminster, S.W.1.

UNQUALIFIED; many years' good all-round experience; well up in Foreign Patents, Dispensing; excellent references. Smart, 29 Chesham Road, Kingston-on-Thames.

UNQUALIFIED, 25, seeks situation; temporary or permanent; excellent experience and references. P.C.B. 23/40, Office of this Paper.

UNQUALIFIED Assistant; young man; Dispensing to Family Chemist; tall; smart appearance; quick; accurate; served time; Manchester. 267/15, Office of this Paper.

WANTED, the management of a good-class, old-established Pharmacy by a thoroughly competent, fully qualified, experienced, middle-aged Chemist (with residence preferred); used to staff control; permanency. "Clifford," 243/7, Office of this Paper.

YOUNG lady, 21, desires position as Junior; Cardiff or district; 3½ years' all-round experience; Dispensing (N.H.I. and Private), Counter. Lewis, Pharmacy, Mardy, Glam.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners; agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

WHOLESALE.

TO MANUFACTURING CHEMISTS.

MAN, holding responsible managerial post with well-known firm, seeks position of General Manager or Sales and Advertising Manager of company desirous of increasing sales; all-round experience of marketing and advertising high-class products to Medical and Dental Professions and to the public through Chemists' trade. 265/1, Office of this Paper.

A REPRESENTATIVE, 25, with strong connection London and South-Eastern Counties, desires position with leading house; thorough experience Proprietaries, Perfumery; references; salary and expenses. Details apply 265/4, Office of this Paper.

A 6d. trade-marked line of infinite possibilities ready for exploitation. Advertiser, a Chemist of experience, Wholesale, Manufacturing and Retail, wishes position with firm willing to develop above; excellent references. "Roc," 8 Nelson Street, Miles Platting, Manchester.

A N experienced, energetic Salesman, connection Chemists, Ironmongers and Hairdressers throughout the United Kingdom, desires position leading house; reasonable salary and expenses. "Cyanide," 10 Jersey Terrace, Danygraig, Swansea.

A N up-to-date Representative, with excellent connection among Chemists in London and Greater London, at present representing leading Wholesale House, desires similar position with first-class firm; permanency; strong selling ability; unimpeachable references. Young, P.C.B. 22/31, Office of this Paper.

AS REPRESENTATIVE.—Manager, 10 years London, West-End, 35, desires post with either Drug, Toilet or Sundries; sound salesman and energetic; own car if necessary; resident London. 258/18, Office of this Paper.

CHEMIST, resident in Portsmouth, desires post as Representative for Hampshire, Berkshire and Sussex; keen salesman. "Pharmacist," 43 Stanshaw Road, Portsmouth.

IRELAND.—Smart and reliable Representative, with live connection with principal Wholesale and Retail Chemistry, Hairdressing and large General Stores, already representing English perfumery firm, would consider representing one or two additional non-competitive houses of good standing. 253/32, Office of this Paper.

PHARMACIST (33) seeks administrative or secretarial post; 14 years' good experience, all branches. Apply "Statim," 17 Leconfield Avenue, Barnes, Surrey.

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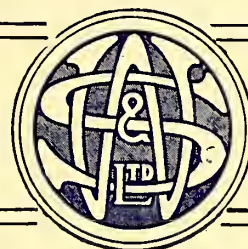
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